



Report of the Auditor General of Alberta

SEPTEMBER 2014

HEALTH—CHRONIC DISEASE MANAGEMENT



Mr. Matt Jeneroux, MLA
Chair
Standing Committee on Legislative Offices

I am honoured to send my *Report of the Auditor General of Alberta – September 2014* to Members of the Legislative Assembly of Alberta, as required by Section 20(1) of the *Auditor General Act*.

[Original signed by Merwan N. Saher, FCA]

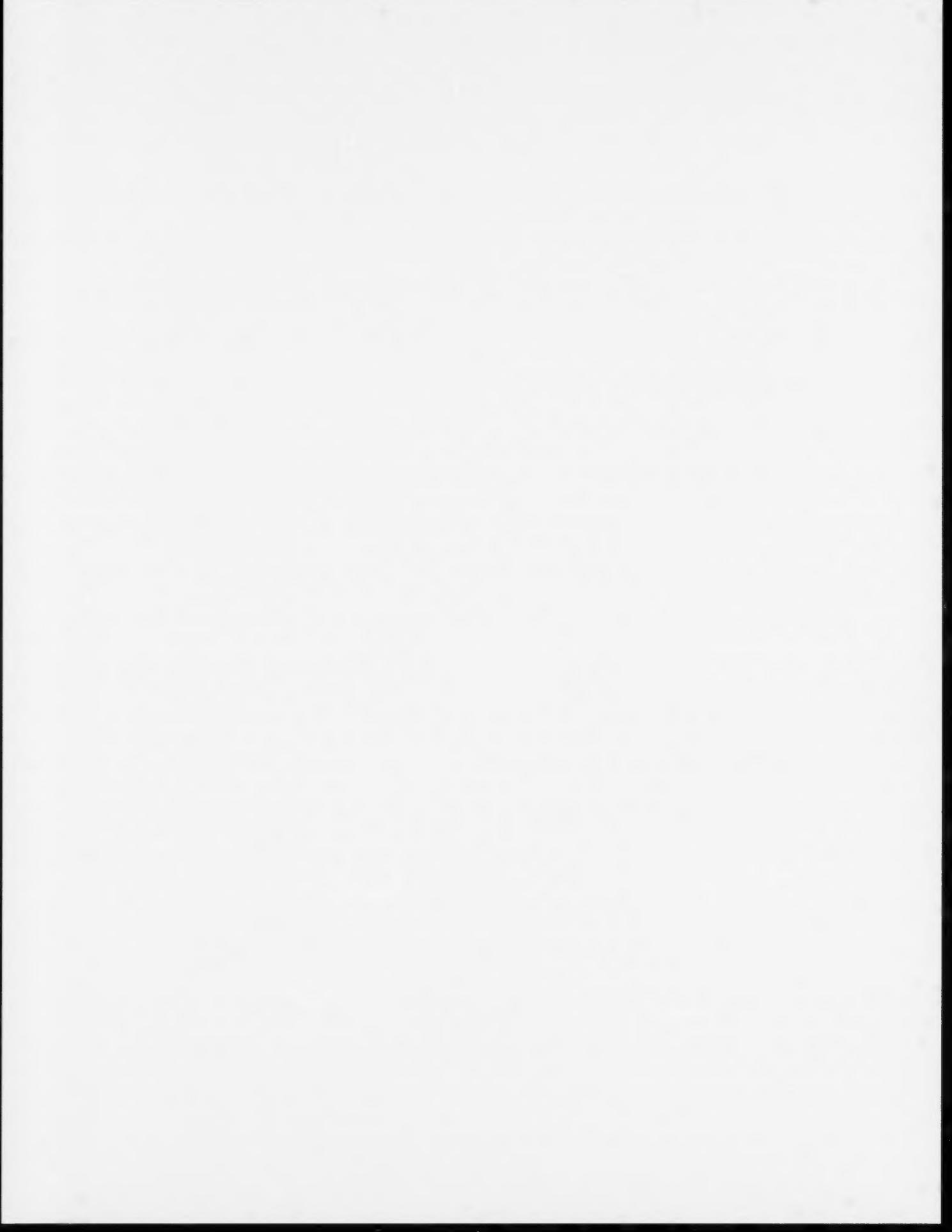
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Edmonton, Alberta
September 2, 2014



CONTENTS

Summary	1
Audit objective and scope	8
Audit background	9
The department's chronic disease management strategy	11
The patient-physician relationship	17
Chronic disease management services provided by Alberta Health Services	21
Care plans for individuals with chronic disease	25
Information technology to support chronic disease management	36
Appendices	45
High performing healthcare system chronic disease management attributes	
Legislation and agreements	
Quality improvement initiatives	



SUMMARY

Chronic disease is a long-lasting condition that usually becomes worse and often cannot be cured. The purpose of chronic disease management (CDM) is to provide care that helps people with chronic disease improve their quality of life and live as long as possible. Effective chronic disease management can also reduce overall costs to the public healthcare system.

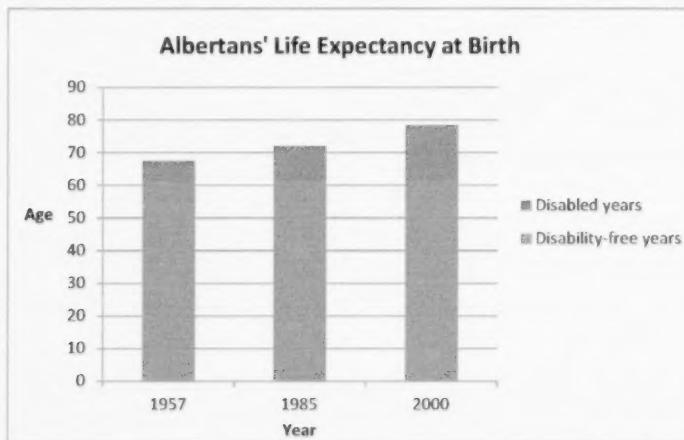
The most common chronic diseases in Alberta include hypertension (high blood pressure), diabetes, chronic obstructive pulmonary disease, asthma, heart failure, coronary artery disease, obesity and depression.¹

The personal consequences of these diseases can range from pain, impaired mobility, reduced ability to work, and social isolation to dependence on drugs, repeated trips to hospital, amputations and early death.

The financial costs to Alberta's healthcare system run into billions of dollars. Chronic diseases require the services of thousands of healthcare professionals and the infrastructure and systems to support them. People with chronic diseases account for nearly two-thirds of hospital inpatient days, one-third of all visits to physicians and more than one-quarter of visits to emergency rooms.

Chronic diseases are becoming widespread. About 25 per cent of Albertans will develop diabetes. More than 90 per cent will have high blood pressure by age 80. Depression affects over 15 per cent of women and 7 per cent of men—it is a chronic disease in its own right and can also be a barrier to individuals in self-managing other chronic conditions.²

The number of individuals with chronic disease in Alberta is rising rapidly due to a growing population, aging and unhealthy lifestyle factors.³ The burden of chronic disease is also rising because, while people's life expectancy is increasing, their years in good health are not. In many cases, this lengthens the time chronic diseases must be treated.⁴



¹ While cancer meets the definition of chronic disease, cancer care is a specialized area excluded from this audit.

² Alberta Health Services – Data Integration, Management and Reporting (DIMR), Depression and Other Prevalence Rates in Alberta, 2011.

³ Unhealthy lifestyle factors are the largest cause of chronic disease—they include tobacco use, poor diet, physical inactivity and excessive alcohol consumption.

⁴ Source: R. Lewanczuk, Chronic Disease Management – What does it mean in everyday practice?, Banff, 2010. Statistics are an average—men have a somewhat lower life expectancy than women in each year shown.

The healthcare community has identified ways to manage chronic disease effectively. The challenge is to build a healthcare system with those practices at its core.

We believe the Department of Health needs to focus on three key elements of CDM:

- engaging patients in self-managing their condition
- providing high quality healthcare, supported by high quality information systems
- developing an overarching strategy that focuses on chronic disease and coordinates the services for patients across Alberta's healthcare system.

Patient engagement

Patients generally spend less than one per cent of their time in physicians' offices. Engaging patients in self-managing their chronic disease is crucial to their health outcomes. Many patients benefit when family or friends also help them manage their condition.

Patient engagement should start with patients having a family physician. Medical evidence shows that patients who consistently see the same physician have better outcomes, are more satisfied with their care, and use fewer healthcare resources.

Patient engagement requires that patients have a care plan for managing their chronic disease. Care planning allows individuals with chronic disease to make decisions about the aspects of their health and wellbeing that matter most to them. It involves patients working with their physician and care team to develop the concrete steps the patient needs to take to stay as healthy as possible.

If managed properly, care plans can also tell physicians and care teams whether treatments are working, and what may need to change. Systems to manage care plans at the physician level can also provide information for the Department of Health to know whether chronic disease management in the province is effective overall.

Healthcare services

Patients with chronic disease need more than a family physician. A care team of professionals such as nurse practitioners, nurses, dietitians, therapists, mental health counsellors and pharmacists, is vital. Alberta Health Services estimates an average of three non-physicians should work in a team setting with each physician to manage chronic diseases properly.

Information technology is a key enabler of effective CDM. Electronic medical record systems in physician offices must be able to send and receive patient information quickly, efficiently and securely. They must also be able to help the care team monitor care plans and take action if targets are not being met.

Most of our recommendations depend on systems for risk assessment, measurement and evaluation. Action on these recommendations will require the consistent collection and management of healthcare data. A unified information system to share clinical information between Alberta Health Services and physicians will be one of the most important tools to facilitate this work.

Patients also need online access to their personal health records and care plans to help them keep track of appointments, medications, and tests. Systems that let patients communicate with their care team electronically are widely used in high performing healthcare systems.

CDM strategy

The healthcare system needs a comprehensive plan for chronic disease management. It needs to set expectations for the services Albertans should be provided, and it needs to establish who is responsible for providing them. It needs to make sure all individuals with chronic diseases are identified and linked to family physicians and care teams. It needs to coordinate care and provide the right supports to both patients and care providers. It needs to be able to assess patterns of disease occurrence and the effectiveness of care.

The Department of Health and Alberta Health Services, working with professional healthcare regulating bodies, are the entities that need to direct CDM across the province.

Why chronic disease management is important to Albertans

Chronic diseases are arguably the largest challenge facing our healthcare system. More than any other health problem, chronic diseases shorten people's lives and make their lives more difficult.

Chronic diseases are also the largest drivers of healthcare costs—they are the most common cause of hospitalizations and emergency department visits, and the most common reason for family physician visits. The burden of chronic disease will increase as our population grows and ages, and unhealthy lifestyle factors lead to higher rates of new cases of chronic disease. Effective management of chronic diseases is therefore critical to the health of Albertans and the long-term sustainability of our public healthcare system.

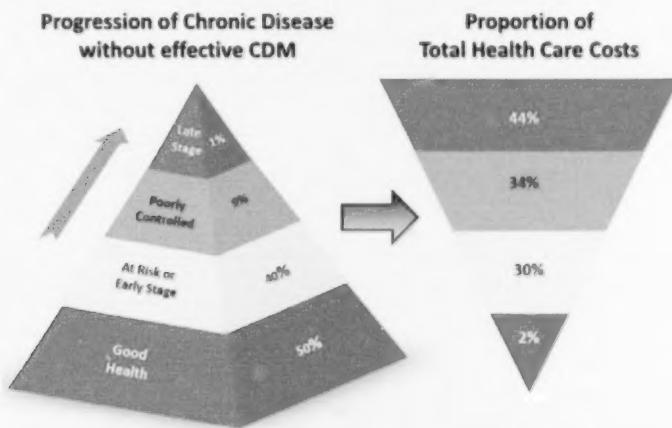
In 2012–2013, over 735,000 Albertans were known to the Department of Health to have one or more of hypertension, diabetes, chronic obstructive pulmonary disease and coronary artery disease. The publicly funded healthcare services for these patients cost more than \$4.5 billion that year alone, including:

- over 150,000 hospital stays (39% of stays), for a total of 1.8 million days in hospital (60% of total inpatient days), at an estimated cost of \$2.9 billion. The average length of stay for these patients was 11.8 days, almost 2½ times the average for all other patients.
- over 5.9 million visits to general practitioners (34% of all GP visits), at a cost of \$385 million.
- over 4.0 million visits to specialists (38% of all specialist visits), at a cost of \$645 million.
- over 9.7 million prescriptions, at a cost of \$475 million.
- over 575,000 emergency department visits (27% of ER visits), at an estimated cost of \$105 million.⁵

These amounts do not include the funding for Primary Care Network and Family Care Clinic services, or the costs of lab tests, diagnostic imaging, long-term care, home care, and other non-hospital AHS services provided to these patients. They also do not include the substantial amounts individuals and their private insurers pay for medications and services not funded by the public healthcare system.

⁵ We analyzed healthcare administrative datasets provided by the Department of Health and cost information provided by Alberta Health Services. We did not audit the underlying transactions in these datasets or cost estimates. The department acknowledges the actual number of patients with these four chronic diseases is likely higher due to time lags in reporting and limitations in the diagnostic information in the data.

The top 10 per cent healthcare users (the majority of whom have at least one chronic disease) account for more than three-quarters of all direct patient costs, while the healthiest 50 per cent of the population is responsible for only 2 per cent of costs.⁶ A key to controlling these costs is slowing the progression of chronic disease in individual patients through effective management of their condition.



Effective CDM is therefore critical to the health of Albertans and the long-term sustainability of our public healthcare system. The situation is not unique to Alberta or to Canada. Leading health experts at the U.S. Centers for Disease Control and Prevention recently stated: "With non-communicable conditions accounting for nearly two-thirds of deaths worldwide, the emergence of chronic diseases as the predominant challenge to global health is undisputed."⁷

Because chronic disease can be managed but not cured, the health of individuals with these diseases tends to worsen over time. Many chronic diseases have common underlying factors (e.g., age, poor nutrition, lack of exercise, smoking), so patients with one chronic disease often develop others.

Effective CDM can help to reduce the health impacts and costs of chronic diseases. For example, diabetes is a lifelong condition that, if poorly managed, typically follows a predictable course of increasing complications and disability. If diabetes is well managed, these complications and their costs can be greatly reduced.⁸

Effective CDM treats these diseases in primary care, before patients require hospitalization. This helps patients maintain their health. It also reduces the cost of chronic disease treatment because primary care is much less expensive than acute care.

There is an overarching need for purposeful, province-wide action to manage the growing burden of chronic disease. New actions must be dramatic. Small, incremental improvements could be overwhelmed by rising chronic disease numbers.

⁶ Tapan Chowdhury, Chronic Disease Management and Primary Care in Alberta, Institute for Public Economics, University of Alberta, May 2014. Data provided by Alberta Health Services for 2010–2011 fiscal year.

⁷ Ursula Bauer, Peter Briss, et al. Prevention of chronic disease in the 21st century: elimination of the leading preventable causes of premature death and disability in the USA, *Lancet*, July 2, 2014.

⁸ Richard Lewanczuk, Diabetes and Chronic Disease Management, *Canadian Journal of Diabetes*, December 2009.

What we examined

The objective of our audit was to examine whether the Ministry of Health has adequate systems to deliver CDM services effectively.⁹ We focused on five key areas:

- the department's strategy and systems to determine the healthcare services that should be provided to persons with chronic disease, and who should provide them
- the department's processes to link persons with chronic disease with a family physician and care team
- the CDM services that Alberta Health Services provides
- care plans provided to patients with chronic disease by physicians and pharmacists
- information technology used to support CDM, including:
 - electronic medical records used by family physicians
 - personal health records and technology to help patients self-manage their chronic disease

CDM is too broad to examine fully in a single audit. We focused on programs and services within the mandate and control of the Ministry of Health. We did not examine programs and services designed to improve circumstances generally described as “social determinants of health”, such as income, education and housing. A CDM trend gaining global momentum is that a health care system must work with other government agencies and the community to be successful in treating patients with multiple chronic diseases and challenging living conditions. Pilot programs to support these high-needs patients have started, and will likely have a profound effect on the future of CDM services in Alberta.

We met with representatives from the department, AHS's province-wide Primary Care and CDM business unit, AHS's Primary Care and CDM teams in all five AHS provincial zones, nine Primary Care Networks of varying sizes from across the province, and one Family Care Clinic.

What we found

We were consistently impressed with the skills, resourcefulness and dedication of the people we met in all the entities we contacted. We noted many good practices, several of which we refer to in this report because we believe the healthcare system needs to build on such successes rapidly, without reinventing them.

Our overall conclusion is that Alberta provides some excellent care for individuals with chronic diseases. However, that care tends to be fragmented. No entity has overall responsibility for ensuring that all the parts work together well, that all patients receive the same level of care, or that providers are making good use of available resources to understand chronic diseases and manage patient care.

Our audit findings

KEY FINDINGS

- The Department of Health has not set expectations for the services that physicians, Primary Care Networks and Alberta Health Services should provide to individuals with chronic disease. It needs to define what service providers should be doing, and how it will determine whether intended results are being achieved.
- The Department of Health and Alberta Health Services do not have a process to identify individuals with chronic disease within physician practices or to determine the demand for chronic disease management services in the province as a whole. Knowing who suffers from chronic diseases is the first step toward improved management of these diseases.

⁹ The ministry consists of the Department of Health (including the payments it makes to physicians and Primary Care Networks) and AHS (including the three Family Care Clinics operating at the time of our audit).

KEY FINDINGS (CONT'D.)

- The Department of Health and Alberta Health Services have not taken sufficient responsibility for directing and coordinating chronic disease management. Much of the work of chronic disease management is currently left to Primary Care Networks or even to individual physicians.
- Primary Care Networks do not offer consistent chronic disease management services across the province, or sometimes even within their own network. The networks receive good educational support from Alberta Health Services. However, Primary Care Networks do not have sufficient non-physician care team providers to deliver a full range of chronic disease management services. Family physicians who do not practice in Primary Care Networks have even less coordination and support.
- The Department of Health's care plan initiatives have not been widely adopted or well implemented. One of every five patients with qualifying chronic conditions is recorded as having a care plan, and most of these care plans are not evaluated for effectiveness.
- The Department of Health and Alberta Health Services have not made the best use of the healthcare information they have available. In part, healthcare data has not been more widely used because providers may not understand what they can share. Enhanced use of healthcare data does not have to compromise personal privacy. Further advances in the use of technology in physician offices are also critical.
- Alberta Health Services could improve the management of its chronic disease management services and integrate these services with family physicians more thoroughly. Alberta Health Services is the default provider of care for chronic disease patients who do not have a regular physician, but it does not have processes to ensure these patients receive proper care.
- Chronic disease management services across the province are not assessed to measure whether they are achieving their intended results.

Appendix A places our findings in the context of the differences between CDM service delivery in a high-performing healthcare system and the current state of CDM services in Alberta.

What needs to be done

Alberta has developed some good approaches to chronic disease management. However, these approaches can be improved. Several partial steps in the right direction need to be followed through to completion.

We recognize that improvement in CDM across the province will take time. For example, changing what is expected of service providers will require negotiation with professional regulating bodies. Patients will need to learn how to use new tools to better self-manage their chronic diseases. Systems to collect and analyze the information to assess effectiveness need to be developed at both the provider level and for the healthcare system overall.

We believe action needs to be taken immediately on all our recommendations. The following timeline provides our opinion on when implementation could be substantially complete:

TIMEFRAME	RECOMMENDATIONS
within 1 year	<p>Recommendations to the Department of Health to:</p> <ul style="list-style-type: none"> • set expectations for CDM services to be provided by physicians, AHS and Primary Care Networks • strengthen CDM supports to family physicians • facilitate secure sharing of patient healthcare information among providers • support all family physicians in identifying who their patients are and which patients have chronic disease • set expectations for care plan delivery and strengthen the administration of care plan billings • support family physicians and care teams in implementing better electronic medical record systems <p>Recommendations to Alberta Health Services to:</p> <ul style="list-style-type: none"> • develop a system to assess demand for CDM services across the province • set provincial objectives and standards for its CDM services • identify and provide care to patients who do not have a family physician until they can be linked with one
within 2-3 years	<p>Recommendations to the Department of Health to:</p> <ul style="list-style-type: none"> • request physicians to provide comprehensive team-based care to patients with chronic disease • establish processes to assess the effectiveness of CDM services delivered by the providers it funds • determine what it considers to be an effective care team size and composition, and work with family physicians, Primary Care Networks and other providers to help build teams to this level • establish a formal process to integrate patient care plans prepared by physicians and pharmacists • evaluate the effectiveness of care plans on an ongoing basis • provide personal healthcare information to individuals with chronic disease, including their medical history and care plan <p>Recommendations to Alberta Health Services to:</p> <ul style="list-style-type: none"> • integrate its CDM services with those provided by physicians, Primary Care Networks and Family Care Clinics to avoid gaps and duplication • coordinate its CDM services with patients' care plans • establish systems to measure and report the effectiveness of its CDM services

AUDIT OBJECTIVE AND SCOPE

What we audited

The objective of our audit was to examine whether the Ministry of Health has adequate systems to deliver chronic disease management services effectively. The ministry consists of the Department of Health (including the healthcare services it pays family physicians, pharmacists, and Primary Care Networks to provide) and AHS (including the three Family Care Clinics operating at the time of our audit).

Chronic disease management is too broad to examine fully in a single audit. We focused on five areas we consider essential to effective CDM. We examined whether the ministry has systems to:

- manage the business of providing healthcare services to individuals with chronic disease
- link all Albertans with a family physician and care teams
- plan and evaluate the chronic disease services delivered by AHS and Primary Care Networks
- support individuals with chronic disease through comprehensive care plans
- support chronic disease services with information technology, including:
 - electronic medical records in physician offices and AHS
 - personal health records to give patients access to their health information

As part of this audit, we made extensive use of healthcare data provided by the department, including data that flows to the department from AHS. In some cases, we relied on analyses of this information performed by the department or AHS. In other cases, we performed analyses that are not currently being done by either entity. To the extent our examination of the data revealed useful information (e.g., care plan implementation), the department or AHS may wish to perform similar work in future.

What we did not audit

We did not examine the following aspects of CDM:

- programs or services designed to improve circumstances generally described as “social determinants of health”, such as income, education and housing, that are outside the mandate and control of the Ministry of Health
- the social and economic impacts of chronic disease external to the healthcare system (e.g., pain and suffering, lost productivity)
- general health promotion and illness prevention programs provided to individuals who do not have a chronic disease
- care provided to individuals with chronic disease by specialist physicians, hospitals, urgent care centres, home care or long-term care facilities. We also did not examine the referral processes between family physicians and these providers.
- the work of any specific individual family physician, pharmacist or other professional care provider

AUDIT BACKGROUND

What is chronic disease?

AHS defines chronic diseases as “conditions which are long-lasting, non-reversible and often require special therapy, education and training for the individual with the chronic disease to maintain health.”¹⁰ AHS considers the highest priority chronic diseases in Alberta to be (in alphabetic order):

- arthritis
- asthma
- chronic obstructive pulmonary disease
- coronary artery disease
- depression
- diabetes
- heart failure
- hypertension
- obesity

What is chronic disease management?

CDM is a structured approach for providing high quality care to individuals with chronic disease to reduce the burden of illness and improve their quality of life. The main elements of CDM are generally accepted in the healthcare community and have been described as the patient’s medical home.¹¹ Alberta and several other provinces support this model of care.¹²

From a healthcare system perspective, the main features of effective chronic disease management include:

- identifying individuals who have chronic disease(s)
- establishing a patient-family physician relationship for individuals with chronic disease
- developing a care plan, based on good clinical practice, for individuals with chronic disease
- providing inter-professional care to individuals with chronic disease (e.g., nutrition, exercise therapy, counseling)
- providing supports to help individuals with chronic disease self-manage their health condition
- transitioning individuals with chronic disease to specialized or acute care when their condition becomes severe, and back to primary care once they are stabilized
- using information technology to track patients over time, support clinical decisions, share patient information among providers and patients, and report performance

There is strong rationale for targeted action in chronic disease management:

- It represents a large and identifiable segment of the healthcare population
- Evidence-based good practices exist for delivering chronic disease care
- Much of the infrastructure and many of the processes are already in place in Alberta
- The healthcare community has developed generally accepted measures to assess progress and performance

¹⁰ AHS website: <http://www.albertahealthservices.ca/7736.asp>, accessed August 25, 2014.

¹¹ College of Family Physicians of Canada, *A Vision for Canada: Family Practice – The Patient’s Medical Home*, September 2011.

¹² Alberta Health, Alberta’s Primary Care Health Care Strategy, May 2014.

Who delivers chronic disease management services?

The department funds the following entities and providers to deliver CDM services in the community:

- a) **Family physicians**—There are approximately 4,000 family physicians in the province, working in solo or group practice, independently or as members of Primary Care Networks or Family Care Clinics.
- b) **Primary Care Networks**—Primary Care Networks are joint ventures between family physicians and Alberta Health Services. In 2014–2015, the 42 Primary Care Networks across the province will receive a total of over \$215 million from the department to provide extended-hours access to primary care and inter-professional team-based care including CDM services. Primary Care Networks collectively employ approximately 700 full-time equivalent care providers including nurse practitioners, registered nurses, registered dietitians, pharmacists, exercise therapists, mental health counsellors and social workers to work in care teams with approximately 3,000 family physicians.¹³
- c) **Alberta Health Services**—AHS provides various CDM services to complement those provided by family physicians and Primary Care Networks, including specialty clinics, education for healthcare providers and patients, supervised exercise, and patient self-management classes. AHS is also the “provider of last resort” for patients in underserved areas, and for patients who cannot find a family physician. AHS’s annual budget for CDM services across the province in 2013–2014 was \$22 million, which it uses to employ approximately 300 full-time equivalent healthcare providers including registered nurses, pharmacists, exercise therapists and mental health counsellors at various sites.
- d) **Family Care Clinics**—There are currently three Family Care Clinics operated by AHS, with plans to open nine more in the next year. Family Care Clinics each receive funding of approximately \$5 million a year to provide comprehensive team-based care and extended hours service, particularly to patients who do not have a family physician.
- e) **Specialist physicians**—Specialists provide a higher level care for more severe chronic disease conditions, on referral from a family physician.
- f) **Pharmacists**—Pharmacists’ scope of practice is expanding to include aspects of CDM, such as preparing care plans for patients.

¹³ This is the number of physicians who were members of a Primary Care Network at the time of the October 1, 2013 Primary Care Network funding allocation.

THE DEPARTMENT'S CHRONIC DISEASE MANAGEMENT STRATEGY

Background

Chronic disease patients consume a large proportion of healthcare services. Alberta's Minister of Health recently stated that "... the business of health care in Canada has largely become the business of managing chronic disease."¹⁴ Therefore, the department has a substantial vested interest in treating chronic patients effectively.

A legislative framework sets out the respective mandates and responsibilities of the department, AHS, family physicians, and Primary Care Networks. A summary of applicable legislation and agreements is provided in Appendix B.

We examined how the department coordinates the delivery of CDM services among the entities and providers it funds, and measures whether these services are effective in achieving expected results.

RECOMMENDATION 1: IMPROVE DELIVERY OF CHRONIC DISEASE MANAGEMENT SERVICES

We recommend that the Department of Health improve the delivery of chronic disease management services in the province by:

- defining the care services it expects physicians, Primary Care Networks and Alberta Health Services to provide to individuals with chronic disease
- requesting family physicians to deliver comprehensive team-based care to their patients with chronic disease, through a Primary Care Network or appropriate alternative
- establishing processes to assess the volumes, costs and, most importantly, the results of chronic disease management services delivered by the healthcare providers it funds
- facilitating secure sharing of patients' healthcare information among authorized providers
- strengthening its support for advancing chronic disease management services, particularly among family physicians where the need for better systems and information is most critical

Criteria: the standards for our audit

The department should set expectations for the nature and quality of CDM services that should be available to individuals with chronic disease, and define the roles and responsibilities of the providers it funds to provide these services. The department should also have systems to determine whether these CDM services are being provided and whether they are effective.

Our audit findings

KEY FINDINGS

The Department of Health's Primary Health Care Strategy describes the key elements of effective chronic disease management. However, our overall conclusion is that the department does not currently have a structured approach or business model to deliver chronic disease management services at the level of a high-performing healthcare system. Our conclusion is based on the following:

- The Department of Health has not set clear expectations for the chronic disease management services that should be available to individuals with chronic disease (e.g., care plans and care teams).
- The Department of Health does not have a system to determine the demand for chronic disease management services across the province.
- The Department of Health has not clearly defined the roles and responsibilities of providers for delivering chronic disease management services to meet demand.
- The Department of Health has not defined its expectations of family physicians with respect to providing comprehensive team-based care to patients with chronic disease.

¹⁴ Fred Horne, Closing Remarks – Accelerating Primary Care Conference, November 2012.

KEY FINDINGS (CONT'D.)

- The Department of Health does not have formal processes to obtain assurance that physicians and Primary Care Networks are providing chronic disease management care in accordance with good clinical practice.
- Sharing of patients' healthcare information among authorized providers can be improved.
- The Department of Health does not have adequate systems to evaluate the effectiveness of chronic disease management services across the healthcare system.

Expectations for CDM services

The department has not set expectations for the CDM services (e.g., care plans and care teams) that should be available to individuals who have chronic diseases.

We found major differences in the level of CDM services available throughout the province. For example, as discussed on page 19, whether individuals with chronic disease receive CDM services from a team of healthcare providers depends on whether their physician is a member of a Primary Care Network or whether AHS has locally available CDM services. As discussed on page 28, whether individuals with chronic disease are offered the opportunity to have a care plan, and whether that care plan is actively managed, are choices made by their family physician.

In setting expectations, a key decision is whether the objective is the highest level of care or an "acceptable" level of care, and what the implications of this decision will be on resource requirements, outcomes, and costs.¹⁵ By publicly stating its expectations, the department can provide the basis for assigning roles and responsibilities to providers and holding them accountable for results.

Assessing demand for CDM services

The department analyzes healthcare data to identify new and existing cases of major chronic disease.¹⁶ AHS does essentially the same. However, neither entity uses this information to identify the resource requirements necessary to meet the demand for CDM services.

AHS is a 50 per cent joint venture participant in each Primary Care Network. However, on a day-to-day basis, the Primary Care Networks are controlled by family physicians. The department recently announced it is funding additional Family Care Clinics that will operate under its control. These clinics also have a role in providing CDM services. The department does not have a formal process to bring family physicians, AHS, Primary Care Networks and Family Care Clinics together to assess the need for, and coordinate the provision of, CDM services across the province.

Roles and responsibilities

The department has not defined the respective roles and responsibilities of family physicians, Primary Care Networks, and AHS for providing CDM services. The department has not set goals, priorities and targets for these providers in terms of the services each is to provide and the patients they are to serve.

¹⁵ For example, the department needs to determine how potential trade-offs in the quality of CDM care at the primary care level can impact costs in both primary care and more expensive speciality and acute care.

¹⁶ Data used includes physician claims, hospital inpatient and emergency records, and laboratory test results.

The department

The department is the entity through which the Minister of Health directs the healthcare system. Under the direction of the deputy minister, the department's role is to provide:

- accountability for provincial healthcare programs and oversight of the provincial healthcare system
- funding, guidance and direction to AHS, including specifying priorities, performance measures and targets, and information to be reported to the department
- standards of care for the healthcare system, and monitoring of performance against those standards¹⁷

The department directly manages the ministry's relationship with physicians, including negotiating the Alberta Medical Association Agreement, paying physicians, and funding and controlling the Primary Care Network program.¹⁸

Alberta Health Services

Under the *Regional Health Authorities Act*, the role of AHS is to:

- assess on an ongoing basis the health needs of Albertans
- determine priorities in the provision of healthcare services in Alberta and allocate resources accordingly
- ensure reasonable access to quality healthcare services is provided throughout Alberta
- promote provision of healthcare services in a manner that supports the needs of individuals and communities, and the integration of services and facilities in Alberta.¹⁹

The department's direct role in managing the ministry's relationship with physicians limits AHS's ability to allocate the full resources of the healthcare system to meet the healthcare needs of Albertans. While AHS has a general responsibility to provide healthcare services in the province, its lack of authority or mandate to formally coordinate with family physicians restricts its ability to plan and deliver CDM services.

AHS has defined its role in CDM as providing more specialized care than what is typically available through individual physician offices, providing education to healthcare providers in Primary Care Networks, and “filling gaps” by providing CDM services to individuals who do not have a family physician. The CDM services provided by AHS are discussed on page 21.

Family physicians

The relationship between physicians and the department is governed by the Alberta Medical Association Agreement. The AMA Agreement states only that “physicians will be compensated for providing Insured Medical Services, wherever those services are provided, at the rates set out in the Schedule of Medical Benefits and Alternative Relationship Plans.”²⁰

¹⁷ Ministry of Health, Alberta Health Services – Mandate and Roles Document, December 2, 2010. This document has expired. It was to be renewed, amended or replaced by February 28, 2013. Nevertheless, it is the most current definition of the department's role.

¹⁸ AHS and family physicians are 50 per cent joint venture participants in each Primary Care Network. Physicians control the day-to-day operations of the Primary Care Networks, with AHS participating more at the governance level on Primary Care Network boards. However, the department sets Primary Care Network program direction and Primary Care Networks are accountable to the department. Under the 2011–2018 AMA Agreement signed in 2014, the department has agreed to consult with the AMA on primary healthcare policy and strategy development.

¹⁹ See Appendix B.

²⁰ Section 3 of the AMA Agreement—the term of the current agreement is April 1, 2011 to March 31, 2018.

HEALTH—CHRONIC DISEASE MANAGEMENT

The department relies on the College of Physicians and Surgeons of Alberta to provide direction to physicians and regulate their practices. The college has defined standards of practice physicians are required to comply with.²¹ These standards cover the following areas:

- maintaining professional competency
- collaboration and communication with other healthcare professionals on patient care
- establishing (and terminating) the patient-physician relationship
- delivery of medical services
- practice management, and
- ethics, integrity and professionalism

The standards of practice are specific in areas such as the requirement that family physicians provide their patients after-hours access to services. However, they do not cover key aspects of CDM care, such as identifying who their patients are, and which of these patients have chronic disease. The standards also do not address areas such as preparing care plans, providing inter-professional care through care teams, or using information technology effectively to measure the quality of care they provide. As a result, there is significant potential for a gap between the vision the department may have for CDM and how physicians practice.

Approximately 20 per cent of family physicians are not members of a Primary Care Network. Since the start of the Primary Care Network program, the department has allowed physician membership in a Primary Care Network to be voluntary. The department may need to reconsider this position, or develop an appropriate alternative, if it is to ensure all family physicians are providing comprehensive team-based care to their patients with chronic disease. Moreover, physicians who are not part of the Primary Care Network program risk becoming increasingly isolated from the advancements occurring in service delivery, evaluation, and accountability for results as the Primary Care Network program matures.

The department has not defined its expectations of family physicians with respect to chronic disease management. The division of authority and responsibility between the department, AHS and family physicians makes it difficult, for example, for the department to implement aspects of Alberta's Health Charter, including the right to have a care plan developed by the patient and their caregivers. The department encourages physicians to develop a care plan for their patients with chronic disease, but does not require they do so.

Additional expectations that should be clarified were identified in a recent report of the Health Quality Council of Alberta.²² The report highlighted the need to improve the continuity of care and referral process between family physicians and specialists. Part of this responsibility must fall to family physicians and be clearly understood. To close the loop, processes need to be in place to ensure specialists see the patients referred to them by family physicians. We heard from some Primary Care Networks that processes should also be developed to help family physicians track whether lab test and diagnostic imaging requisitions are completed, and prescriptions are filled as ordered.

²¹ College of Physicians and Surgeons of Alberta, Standards of Practice—the minimum standard of professional behavior and good practice expected of Alberta physicians.

²² HQCA, Continuity of Patient Care Study, December 19, 2013.

Patients

Patient self-management is the cornerstone of effective CDM. While physicians and care teams can provide care and advice, patients generally spend less than one per cent of their time in physicians' offices.²³ Patients' health outcomes therefore depend heavily on the steps they take to manage and improve their own condition.

Patients need to understand what they should do and why. However, most people also need help to implement lifestyle changes. For example, persons with chronic disease may face challenges obtaining healthy foods, an unsupportive personal environment, or misconceptions about their condition. In many cases, patients will require the help of family, friends and community organizations.

The department has taken an initial step in defining the role it considers patients need to play in self-managing their chronic disease. The ministry's new Health Advocate recently released a Health Charter that briefly describes the patient's role. Under the charter, patients are responsible for making healthy choices in their lives. They are also responsible for asking questions to understand information they are provided, and to demonstrate they understand their care plan and are taking steps to follow the plan.

One Primary Care Network we visited provides its patients with a similar set of expectations. We considered this an example of good practice. To bring patient self-management in Alberta to the level of a high-performing healthcare system, the department needs to ensure all patients with chronic disease are being provided the support they need to understand and acknowledge their role in managing their own health.

Accountability for results

Family physician accountability

Physicians are primarily accountable to their patients for the quality of their care. They are also accountable to the college for their professional conduct. The department receives billings from physicians indicating the patient, location and date of service, diagnoses and medical service provided. The department does not require any direct accountability from physicians for the quality of care they provide or the results they achieve for funds provided.

Formally establishing patient-physician relationships, as discussed on page 17, and defining the responsibilities of physicians for the services provided to their patients under their care, are necessary prerequisites to physician accountability.

Primary Care Network accountability

Primary Care Networks, now a major channel for delivery of physician services and services of allied providers, have limited accountability for results to the department. Primary Care Network business plans and annual reports are submitted to the department. These documents describe CDM services, but are inconsistent in terms of detail on patient use and cost of services.

The department does not require Primary Care Networks to report any patient-specific information on the use of their CDM services. As a result, the department does not know who is receiving CDM services from Primary Care Networks, what services they are receiving, or what the services cost. Without knowing who is receiving these services, the department cannot measure whether CDM services are effective in improving health status or reducing acute and emergency use by individuals with chronic disease.

²³ Department of Health, Comprehensive Care Plan Information Session, June 2009.

Sharing patient healthcare information

Sharing of patient healthcare information can help care providers improve care. It can also help healthcare system managers know whether patients are receiving care services and whether health outcomes are being achieved.

We believe privacy concerns should not prevent patients from receiving the benefits of sharing personal healthcare information. The sharing of patient healthcare information between custodians and care providers is currently allowed under the *Health Information Act*. Some providers, including AHS, may have privacy concerns with sharing individually identifying healthcare information if they do not understand what can be shared.²⁴

For example, AHS funds all publicly funded lab tests in the province. Unless a patient specifically consents, or AHS is providing other healthcare services to the patient, AHS believes it can use test results on an aggregated basis only. It might do so to help its zone managers identify geographic areas where chronic disease appears poorly controlled based on test results. The department has access to the same information, but neither it nor AHS use lab information to monitor whether patients with chronic disease are getting recommended tests, or whether test results indicate their chronic diseases are well controlled.

At the healthcare system level, information sharing could allow the department and AHS to develop a chronic disease registry, similar to the Cancer Registry, to gather personal healthcare information to assess and improve standards of care, assist in patients' treatment and care, and help to further research, education and prevention.²⁵

At the healthcare provider level, an information sharing framework agreement between the department, AHS and several family physicians was put in place March 31, 2013. The agreement allows these physicians and AHS to use a shared electronic medical record system to access personal healthcare information for patients receiving treatment from both providers. This shared medical record system and information sharing agreement are a leading example of how information sharing could take place in a broader way.

Measuring effectiveness and improving quality

The department does not have adequate systems to measure the effectiveness of primary healthcare, including CDM services, across the healthcare system.²⁶ In part, this is because healthcare information systems in Alberta have been designed primarily to process transactions, rather than manage patients' health. The department also has no business unit with the responsibility, authority and resources to drive improvements on the scale required to become a high-performing healthcare system with respect to CDM.

The department funds various entities and programs with a quality improvement role, including the Health Quality Council of Alberta, the Physician Learning Program, Towards Optimized Practice and the Access Improvement Measures Program. See Appendix C for a full description.

²⁴ Under the *Health Information Act* C.H-5 RSA 2000, "individually identifying" means the identity of the individual who is the subject of the healthcare information can be readily ascertained from the information.

²⁵ Cancer Registry Regulation, AR 71/2009 under the *Health Information Act*.

²⁶ The Health Quality Council of Alberta recently arrived at a similar conclusion—see HQCA, Primary Care Measurement Initiative, March 2014.

To date, the participation of physicians, AHS, and their respective care teams in these quality improvement initiatives has been voluntary. However, the success of these educational initiatives makes them prime candidates for broader, and potentially compulsory, implementation. For example, the Access Improvement Measures program could help all physicians who need help to identify and manage their patient panels, prepare care plans, develop CDM registries, and measure and report quality and effectiveness of their care. The department may even wish to consider using a higher level Access Improvement Measures approach for improving the overall delivery of CDM services across the healthcare system.

Implications and risks if recommendation not implemented

The concept of family physicians providing comprehensive, team-based care to panels of patients they are responsible for is relatively new in Alberta. As primary care evolves from episodic to ongoing care in a patient-centered medical home model, clear understanding and agreement on physicians' responsibilities is essential. Until CDM expectations are set, and systems are put in place to see they are met, the department's vision for effective primary health care for every Albertan will not be realized.

THE PATIENT-PHYSICIAN RELATIONSHIP

Background

Effective chronic disease management requires that the healthcare system identify individuals with chronic disease and link them with family physicians and care teams capable of providing comprehensive care in accordance with good clinical practice. The group of patients receiving care from a physician (and care team) are commonly referred to as a "patient panel."

Establishing a patient-physician relationship allows the same group of healthcare providers to:

- determine the patient's health condition
- advise the patient on health risks and treatment options
- work with the patient to develop a care plan with realistic goals and objectives
- provide the patient with appropriate inter-professional care (e.g., support and feedback on nutrition, exercise, medications)
- give the patient the necessary education and tools to help self-manage their condition
- monitor the patient's progress
- assess the effectiveness of the care they provide

Medical evidence shows that patients who consistently see the same physician and care team have better health outcomes, higher satisfaction with their health care, and use fewer healthcare resources at lower cost. Continuity of care enables physicians and teams to provide and demonstrate better clinical care, achieve greater efficiency, and increase their professional satisfaction. While episodic care may be acceptable for temporary illness, continuity of care is clearly better for chronic diseases.²⁷

More than 80 per cent of Albertans have a family physician. However, some individuals with chronic disease are unable to find a family physician. Responsibility for these patients falls to AHS, which has a mandate to provide primary care services equivalent to those a patient would receive from a family physician and care team.

²⁷ Towards Optimized Practice, Coordinated Approach to Continuity, Attachment and Panel in Primary Care, March 2014.

We examined the patient-physician relationship for three basic categories of patients:

- patients whose family physician is a member of a Primary Care Network
- patients whose family physician is not a member of a Primary Care Network
- patients who do not have a family physician

RECOMMENDATIONS 2 & 3: IMPROVE SUPPORT OF PATIENT-PHYSICIAN RELATIONSHIPS

We recommend that the Department of Health improve its support of patient-physician relationships by:

- requesting all family physicians establish a process to identify their patient panels and which of those patients have chronic disease, and providing them with healthcare data to help them do so
- determining what it considers to be an effective care team size and composition, and working with family physicians, Primary Care Networks and other providers to help build teams to this level

We recommend that Alberta Health Services identify individuals with chronic disease who do not have a family physician and actively manage their care until they can be linked with a family physician.

Criteria: the standards for our audit

The department should have systems to establish ongoing care relationships between individuals with chronic disease and family physicians and care teams. AHS should have systems to identify and provide care to individuals with chronic disease who cannot find a family physician.

Our audit findings

KEY FINDINGS

- The Department of Health does not have a process to determine whether all individuals with chronic disease have a family physician or who their physician is. While many family physicians in Primary Care Networks have identified which patients are under their care, the majority have not.
- The Department of Health has not asked Primary Care Network physicians to identify which of their patients have chronic disease or risk factors for chronic disease (e.g., pre-diabetes).
- The Department of Health has healthcare information identifying patients with chronic disease and which physician they see most frequently, but does not provide this information in a structured way to physicians.
- The Department of Health's analysis suggests the current size and composition of care teams in Alberta could be enhanced to provide more effective care.
- Alberta Health Services does not have a process to identify individuals with chronic disease who do not have a family physician. While Alberta Health Services recognizes it has a responsibility to provide care to patients who cannot find a physician, it does not currently manage their care on an ongoing basis.

Patients of Primary Care Network physicians

By April 1, 2015, the department expects 80 per cent of Primary Care Network physicians to have a process in place to identify their patient panels. Actual identification is likely to take longer. No target for establishing patient panels has been set for the remaining 20 per cent of Primary Care Network physicians (approximately 600 physicians). The department has not asked Primary Care Network physicians to identify which of their patients have chronic disease or risk factors for chronic disease.

Key success factors in establishing patient panels are:

- using data from physician billings as a starting point to understand which physician patients go to most often. While the department and AHS do not currently provide this information to Primary Care Networks, the Health Quality Council of Alberta can do this analysis for Primary Care Networks that request it.²⁸
- asking patients to confirm who their physician is and explaining the benefits of an ongoing care relationship
- coding patients and diagnoses consistently in electronic medical records to help identify patients with chronic disease and manage their care²⁹

By supporting such approaches, the department can help family physicians identify which of their patients have chronic disease. We heard from several Primary Care Networks that they currently lack the resources and information to do this on their own. We also saw instances where individual physicians or Primary Care Networks were attempting to reinvent patient identification processes that had already been developed by others.

Patients of non-Primary Care Network physicians

No patient identification process is being put in place for physicians who are not members of a Primary Care Network. This limits the ability of the department and AHS to identify patients who could benefit from chronic disease management. It also leaves a gap in the accountability of these family physicians for the results of the care they provide.

We found that over 750 family physicians with 100 or more patients each were not members of a Primary Care Network.³⁰ These physicians were the main service providers for more than 520,000 patients, including more than 84,000 Albertans identified by the department as having diabetes, hypertension, chronic obstructive pulmonary disease or coronary artery disease.

Because these physicians are not members of a Primary Care Network, their patients do not receive the benefit of Primary Care Network funding to employ healthcare providers including nurse practitioners, nurses, dietitians, mental health counsellors, exercise therapists and others to deliver CDM services.

Patients without a physician

AHS is responsible for providing care to individuals with chronic disease who cannot find a family physician. However, it currently has no process to identify who these people are or where they are, and no process to provide them with ongoing care until they can be linked with a family physician.

We found that, at the time of the October 2013 semi-annual Primary Care Network funding allocation, more than 490,000 Albertans were not linked with a family physician.³¹ Of these, more than 16,450 were individuals known by the department to have diabetes, hypertension, chronic obstructive pulmonary disease or coronary artery disease.

²⁸ Ibid 26. The HQCA has found the department's method of allocating patients to Primary Care Network physicians is about 70 per cent accurate in identifying patient panels and has developed an algorithm that it considers more accurate.

²⁹ These practices are also endorsed in Towards Optimized Practice, Guide to Panel Identification, April 2014.

³⁰ Based on October 2013 semi-annual Primary Care Network funding allocation data.

³¹ We compared active individuals in the Alberta Health Care Insurance registry with patients assigned to a physician by the department's Primary Care Network allocation process. Our finding is consistent with the Health Quality Council of Alberta's 2012 survey that found 17 per cent of Albertans do not have a family physician—see HQCA, Satisfaction and Experience with Healthcare Services: A Survey of Albertans 2012, January 2013.

AHS has a mandate and legal responsibility under the *Regional Health Authorities Act* to provide healthcare services to patients who cannot find a family physician. AHS does not analyze healthcare data to see which individuals do not have a family physician despite having access to the same information we were given. AHS indicates it will wait for physicians to identify their panels before trying to determine which patients do not have a family physician. As noted above, this will take time and many physicians are not part of the Primary Care Network panel identification initiative.

AHS recognizes it has responsibility to ensure that services are provided to patients who are unable to find a family physician. However, at present it manages the care of these patients only when they attend an AHS program or facility. AHS informed us it intends to help patients who want a family physician to link with a Primary Care Network in their area. If physicians in the local Primary Care Network do not have the capacity to take on these patients, AHS plans to help the Primary Care Network recruit additional care team providers. For example, high performing healthcare systems in other jurisdictions have found that nurse practitioners, working in teams with physicians, are highly effective as the main primary care provider for a majority of patient health issues.

Care team size and composition

There are opportunities to improve the size and composition of family physician group practices and care teams.

The department's analysis suggests that care teams function most effectively when five or more family physicians practice in a group with three or more care team providers per physician. For example, five family physicians working together with 15 allied care professionals are likely to manage a large number of patients more effectively than the same physicians and care providers would if they worked in smaller groups. However, the department has found that, on average, family physicians in Alberta currently practice in groups smaller than five family physicians, with less than three care team providers per physician.

The health condition of the patients under the physicians' care is also an important factor in determining care team composition. For example, a high proportion of patients with mental health issues may indicate that an increased presence of mental health professionals on the care team would be appropriate.³² Panels with patients who are relatively older and have more complex health conditions could be smaller to recognize the additional care these patients require. Alternatively, care teams could be larger to leverage physician capacity.

Further study is also required in Alberta to determine a reasonable maximum number of patients that family physicians and care teams should provide care for. If patient panels are too large, one effect can be delayed appointments. Delays tend to increase total demand and healthcare system costs if patients are deflected to emergency departments or see multiple providers for the same condition. Panels that are too large result in increased wait times, higher emergency and physician costs, and worse outcomes because delays work strongly against one of the key elements of effective CDM care, namely continuity of the patient's care with their physician and care team.³³

³² Mental health professional typically include registered psychiatric nurses, psychologists, and social workers.

³³ Ibid 27.

We noted that some physicians have relatively high numbers of patients under their care. In October 2013, the department's analysis showed 315 Primary Care Network physicians had over 2,000 patients each. More than 70 of these physicians had over 3,000 patients each. The majority of full-time Primary Care Network physicians, caring for a relatively stable group of patients including individuals with chronic disease, have panels of 1,200 or fewer patients.

We are not suggesting these patient panels are too large—they may be evidence of highly effective care teams. The department needs to understand the circumstances of physicians with large numbers of patients under their care. The size and composition of the patient panel and care team working with the physician is a key consideration. Large numbers may also be appropriate in cases where a physician deals primarily with walk-in patients in a community with many part-time or temporary residents. However, in some cases large panels may indicate excess demand and the need to provide more primary care and CDM services in a community.

Implications and risks if recommendation not implemented

For individuals with chronic disease, an ongoing relationship with a family physician and care team is vital to effective management of their condition. Without adequate systems and supports to establish this relationship, patients may not receive the care they need, when and where they need it.

CHRONIC DISEASE MANAGEMENT SERVICES PROVIDED BY ALBERTA HEALTH SERVICES

Background

AHS is the Alberta crown corporation responsible for the majority of healthcare service delivery in the province. AHS operates hospitals, emergency departments, urgent care centres, community health centres, long-term care facilities, labs and diagnostic imaging facilities, home care, cancer treatment centres, mental health facilities and other programs, either directly or through various contractors. With an annual budget of nearly \$11 billion, over 95,000 direct employees and 8,000 more in wholly owned subsidiaries, AHS is the largest employer in the province and one of the 10 largest healthcare organizations in North America.

The five zones within AHS have direct responsibility for delivery of its CDM services. The zones are supported by a central Primary Care and CDM Division. This division is responsible for analyzing primary care and CDM needs and developing policies and practices on a province-wide basis.

AHS has designed its CDM services to fill gaps in care not delivered by family physicians. These services include diabetes programs with specialist physician care, education, assessment and inter-professional care in outpatient clinics at hospitals and community health centres. They also include the Alberta Healthy Living program,³⁴ education and supervised group sessions (e.g., nutrition and smoking cessation), and a variety of health promotion and CDM programs in each zone. Many of the programs were inherited from the former regional health authorities, a legacy apparent in the diversity of AHS's programs and information systems across the province.

³⁴ The Alberta Healthy Living Program is a community-based CDM program offering patient education on disease-specific and general health topics, self-management support through Better Choices, Better Health workshops, and facility or home-based supervised exercise. Services may also include specialty services and services targeting diverse and vulnerable populations.

RECOMMENDATION 4: IMPROVE AHS CHRONIC DISEASE MANAGEMENT SERVICES

We recommend that Alberta Health Services improve its chronic disease management services by:

- assessing the total demand for chronic disease management services across Alberta
- developing evidence to support decisions on how services provided by Alberta Health Services, family physicians, Primary Care Networks and Family Care Clinics should be integrated
- setting provincial objectives and standards for its chronic disease management services
- establishing systems to measure and report the effectiveness of its chronic disease management services

Criteria: the standards for our audit

AHS should have systems to plan and deliver CDM services not delivered by physicians or Primary Care Networks. These systems should allow AHS to assess and report on the cost, utilization, and effectiveness of its CDM services.

Our audit findings

KEY FINDINGS

- Alberta Health Services does not have an ongoing process to assess chronic disease management needs, making it difficult to match its services with demand.
- The effectiveness of Alberta Health Service's coordination of its chronic disease management services with Primary Care Networks varies between zones and Primary Care Networks.
- Alberta Health Services has not developed a province-wide strategy for its chronic disease management services. As a result, these programs lack standardization across the province. Goals and targets have not been set. There is also no reporting on an overall basis of the services provided, the numbers of patients who use them, what the services cost, or whether they are effective.

Province-wide needs assessment

AHS does not assess, on an ongoing basis, the need for CDM services by disease or community to identify under-served patients and determine funding priorities. While AHS can produce information on chronic disease prevalence by region, it does not translate this information into the CDM resource requirements in those regions.

While demand is hard to quantify, AHS's zone managers indicated to us they do not have sufficient resources to fully meet the demand for CDM services. They cited unserved communities, unserved populations (e.g., aboriginal, foreign-speaking), lack of transportation services to help bring patients to care facilities, and in some cases long wait times for admission to programs.

In 2010–2011, AHS found 82 communities did not have any AHS or Primary Care Network CDM services. It also found that “despite high needs, diverse and vulnerable populations in Alberta face multiple challenges and extensive wait times accessing mainstream CDM services, and these gaps are particularly notable among Aboriginal people, visible minorities, colonies, populations living in rural and remote communities and people experiencing homelessness.”³⁵

AHS zones reported total enrollment of 25,315 patients in their CDM programs that year. Based on the prevalence of only four chronic diseases, AHS estimated the demand for these services likely exceeded 89,500 patients. The study indicated the shortfall needs to be filled by Primary Care Networks and expanded AHS programs. AHS has not completed a province-wide assessment of CDM service needs since the 2010–2011 study.

³⁵ AHS, Business Case - Integrated Community-based CDM Initiative, page1, September 2011.

AHS indicates it is focusing on expanding the capacity of Primary Care Networks to take the lead role in CDM services, with AHS essentially filling gaps. However, while Primary Care Networks have steadily increased the breadth and depth of CDM services they offer, they appear under-resourced to meet the demand AHS has identified.

AHS's models show there should be a ratio of three non-physician professionals for each family physician in a team-based care setting needed to properly support CDM.³⁶ Based on an average of 1,000 patients per physician, Primary Care Networks receive only \$62,000 for each physician. That is not sufficient to fund one full-time equivalent nurse for every physician, or the dietitians, exercise therapists, mental health counsellors, and pharmacists needed for effective CDM.

AHS zones receive information from AHS's data analytics branch showing chronic disease prevalence in their zone. Some zones have recently begun to get aggregated information about patients whose chronic disease appears poorly controlled based on their lab results.³⁷ It is up to individual AHS zones to shift their available CDM resources if possible to meet perceived demand within their zone.

High-needs patients

A small percentage of our population lives with multiple chronic diseases and in circumstances including mental illness and poverty that make providing their health care through conventional channels difficult. These high-needs patients are also extremely high users of healthcare resources, since they frequently visit emergency departments and end up in hospital. As shown in the opening summary, the highest one per cent of patients uses 44 per cent of all healthcare resources. Many of these are high-needs patients with chronic diseases.

One AHS zone has been participating in a “Triple Aim” program since 2012 with Primary Care Network, Family Care Clinic and community partners. The three objectives of Triple Aim are to improve patients’ experience with care (including quality and satisfaction), improve their health, and reduce the cost of their care.³⁸

The program is focused on an inner city community because of its high level of chronic disease and number of emergency room visits for treatment that could be provided in primary care. The program began with identifying the top five individuals in terms of emergency room visits to determine the root causes of their health problems. Examples of common issues were lack of housing, mental illness and addictions, disabilities, and other chronic conditions. The long term goal is to assist all high-needs patients.

To date, the program has been very successful in improving the health and overall welfare of these patients. It has reduced their emergency room visits and the cost of public services they consume overall. It has achieved this success by coordinating with service providers outside the Ministry of Health, including social workers, housing assistance projects and community groups.

³⁶ Ibid. We were also told by Kaiser Permanente that they generally have a ratio of three or more full-time equivalent care providers for every physician on their primary care CDM teams.

³⁷ Although AHS has operated all publicly-funded labs since it was formed in 2008, province-wide laboratory data only became centrally available to AHS in 2013. The process to extract and standardize lab results from multiple lab information systems throughout the province must be done separately for each type of test—AHS has completed the process for approximately 70 of the most common tests.

³⁸ Triple Aim has been developed by the Institute for Healthcare Improvement in the U.S. and is being used across several sites in Canada.

The Triple Aim program highlights a CDM trend gaining momentum around the world—health care must look beyond its traditional boundaries and integrate with other government agencies and the community as a whole if it is to be successful in treating high-needs patients.

Coordinating AHS's CDM services with Primary Care Networks

Coordination and integration of AHS's CDM services with the care provided by family physicians and Primary Care Networks varies in effectiveness depending on the specific relationship between AHS and the Primary Care Network. We saw marked differences in these relationships between and within zones. However, relationships have generally improved since our Primary Care Network audit in 2012.³⁹

AHS is a 50 per cent joint venture participant in each of the 42 Primary Care Networks located across the province.⁴⁰ AHS zone leaders work with family physicians in the Primary Care Networks to plan delivery of services based on local needs and service capacities. To the extent the relationship between AHS and the Primary Care Network physicians is effective, AHS's services integrate with those of the Primary Care Network to expand the nature and coverage of CDM services to patients in the area.

AHS's specialized CDM services have provided an effective bridge between the basic CDM services provided in primary care and the services provided by specialist physicians and acute care hospitals. Primary Care Networks are increasingly taking on more complex CDM care. AHS has considerable expertise in CDM service delivery and has developed a solid foundation of educational resources it provides to Primary Care Networks. Education programs vary by zone, but typically include general CDM, diabetes and chronic obstructive pulmonary disease care.

Primary Care Networks as the main CDM service delivery mechanism are not yet a complete answer. Many physicians are not members of a Primary Care Network and their patients are not able to access CDM services provided by the Primary Care Networks. There continues to be strong demand and need for AHS's CDM programs.

Program standardization

AHS's CDM programs are not consistent across the province. They are essentially a collection of programs inherited from the former regional health authorities. While this diversity may be appropriate in serving different populations across the zones, it limits the ability to summarize and compare information across zones.

We found that zone leaders collaborate informally, but AHS does not have a formal process to share best practices, or establish and maintain standards for its CDM program delivery. Two programs are notable exceptions—they have been successfully standardized, and may be appropriate models for other AHS CDM programs. These two programs are:

- Better Choices, Better Health™—a CDM program featuring the Stanford self-management model for which AHS has province-wide licences
- AHS's Obesity Initiative—a CDM program to provide weight management and bariatric surgery services, funded and driven by AHS province-wide Primary Care and CDM Branch.

³⁹ Report of the Office of the Auditor General of Alberta—July 2012, pages 25–62.

⁴⁰ At April 30, 2014, approximately 80 per cent of family physicians were members of a Primary Care Network. Primary Care Network funding helps employ approximately 700 allied healthcare professionals who work in care teams with Primary Care Network physicians. Teams may be centrally located, co-located in physician clinics or a combination of both. CDM care is a major focus of the Primary Care Network program.

Measuring and reporting effectiveness

AHS does not have meaningful indicators for its CDM performance. For example, AHS is not able to determine readily on a province-wide basis how much it spends on CDM services, how many patients or which ones attend, what its waiting lists are, or whether the services are effective.

Information on patients' use of AHS's CDM programs other than specialty clinics varies by zone and program. Systems used to record services provided to patients in these programs range from electronic medical records to spreadsheets to paper or no records at all.

For CDM services where activity/attendance numbers are kept—generally the larger specialized clinics operating from hospitals and community health centres—there is no follow-up to determine impact on subsequent emergency visits, acute admissions or patient health status.

Implications and risks if recommendation not implemented

AHS needs good information on the demand for CDM services province-wide to properly plan and coordinate its services with those provided by family physicians and Primary Care Networks. It must also have strong systems to measure the cost and results of its CDM services. Without these processes, CDM services may not be available to patients in the right place, at the right time and at reasonable cost.

CARE PLANS FOR INDIVIDUALS WITH CHRONIC DISEASE

Overview

Care plans are a key element of effective chronic disease management. They establish a crucial link between the services healthcare providers deliver and the vital role patients themselves must play in managing their chronic disease. For example, Type 2 diabetes care requires periodic medical tests and medications, but also requires a patient to maintain an appropriate diet and exercise routine.

An effective care plan requires that:

- care providers work with the patient, integrating clinical expertise, evidence-based medicine, and patient values to set realistic goals and objectives for managing the patient's disease
- an appropriate mix of healthcare provider skills are involved to meet the patient's needs
- care providers and the patient monitor and adjust the plan as necessary.

Care planning allows individuals with chronic disease to *shape* their own lives by making decisions about the aspects of their health and wellbeing that matter most to them.⁴¹ It involves engaging patients to recognize what they believe their problems are and what they believe the solutions may be. The objective is for the care team to bring the patient's perspective together with the healthcare services medical evidence shows are effective, to develop a plan the patient finds consistent with their values, and worth trying.⁴²

Medical evidence shows outcomes for individuals with chronic disease not only improve with good care planning, but often fail to improve without it.⁴³ Care plans can also be cost-effective. Patients without well designed care plans, or without the supports to carry them out, often require emergency

⁴¹ U.K. National Health Service, *Implementing Effective Care Planning*, June 2012.

⁴² Edward Wagner, *Chronic Care Model and Integrated Care*, Kingsfund.org.uk, Nov. 4, 2013.

⁴³ Renders et al, *Interventions to improve the management of diabetes in primary care, outpatient, and community settings: a systematic review*, *Diabetes Care* 2001; 24(10):182133.

department visits, specialist consultations, surgery and hospital stays. These higher cost interventions tend to occur sooner, more often, and last longer if an effective care plan is not in place.

Care plans prepared by physicians and care teams

Background

In April 2009 the department began paying physicians approximately \$200 per patient to develop a comprehensive annual care plan for patients with “complex needs”, defined as patients with multiple chronic diseases or complications. Only one physician can bill for providing a care plan to a particular patient in a 365-day period. To qualify, a patient needs two or more diagnoses from Category A or one from Category A and one or more from Category B.

Category A ⁴⁴	Category B
Hypertensive Disease	Mental Health Issues
Diabetes Mellitus	Obesity
Chronic Obstructive Pulmonary Disease	Addictions
Asthma	Tobacco User
Heart Failure	
Coronary Artery Disease	

Care plans are a major initiative for the department. Over \$100 million has been spent to date, with current spending nearing \$30 million per year and increasing. To put this investment into perspective, the entire “Wave 3” of 70 to 80 Family Care Clinics has a projected budget of \$60 million per year.

Year	Expenditures	Number of Patients
2009–10	\$17.1 M	83,000
2010–11	19.9 M	93,300
2011–12	22.5 M	105,500
2012–13	26.7 M	124,800
2013–14 (estimated)	27.5 M	133,000
Total	\$113.7 M	

RECOMMENDATIONS 5 & 6: IMPROVE PHYSICIAN CARE PLAN INITIATIVE

We recommend that the Department of Health improve its physician care plan initiative by:

- defining its expectations for what care plans should contain and how they should be managed by physicians and care teams
- setting targets for care plan coverage and evaluating the effectiveness of care plans on an ongoing basis
- strengthening care plan administration by ensuring that claims identify qualifying diagnoses, and that care plan billings by individual physicians are reasonable

We recommend that Alberta Health Services coordinate its services to patients with chronic disease with the care plans developed by family physicians and care teams.

⁴⁴ On April 1, 2014, the department added chronic renal failure as a Category A condition.

Criteria: the standards for our audit

The department should set expectations and targets for the quality of care plans and how physicians and care teams should manage these plans. The department should have systems to measure care plan effectiveness and take action if expectations are not being met. AHS should coordinate its CDM services with the care plans developed by physicians and care teams.

Our audit findings

KEY FINDINGS

- The Department of Health has not set expectations for what physician care plans should contain or how they should be managed.
- The Department of Health has not specified what care plans prepared by physicians should contain, and has not set targets for care plan implementation.
- The Department of Health does not have an ongoing process to evaluate and improve physician care plan effectiveness, nor does it have an adequate process to review care plan claims for reasonableness and compliance with billing rules.
- Of the physicians who prepare care plans, many do not have the information systems capability to manage them effectively.
- Alberta Health Services does not have a formal process to obtain a patient's care plan from their family physician, or to inform the physician if it considers changes to the plan are necessary.
- Alberta Health Services provides information (e.g., inpatient data, laboratory data) to the Department of Health on a monthly basis that could help it to monitor and assess the effectiveness of care plans.

Care plan standards

The department has not set expectations for how care plans are to be developed or what they should contain. For example, there is no requirement for care plans to include clinically recommended lab tests or test result targets.⁴⁵

We observed instances where family physicians and care teams were using advanced electronic medical record systems to help develop their patient care plans, including built-in libraries from which the team could select procedures and targets for various chronic diseases. The physicians use professional judgment to adapt the recommended actions as necessary for each patient. Bringing such clinical decision support tools to the point of care is a key feature of a high-performing healthcare system. Considerable effort has gone into the development of these systems and the department could leverage this investment to fast-track improvement of care plans province-wide.

Managing care plan progress

There is no requirement for physicians to monitor care plans to determine if patients' goals are being met. The department requires only that "development and administration of a care plan ... includes ongoing communication as required as well as re-evaluation and revision of the plan within a year."⁴⁶

⁴⁵ For example, see the Canadian Diabetes Association, Clinical Practice Guidelines, April 2013 (endorsed by the Alberta Medical Association). An effective care plan should include such procedures, adapted as necessary based on the patient's specific circumstances and physician's professional judgment.

⁴⁶ Alberta Health Care Insurance Plan, 2012-13 Schedule of Medical Benefits, Code 03.04J, Note 2.

To be effective, care plans must be monitored and they must be dynamic. The physician and the patient need to review progress periodically to confirm the plan is being followed, targets are being achieved, and the plan is adjusted if necessary. Some physicians use advanced features in their electronic medical record systems to help create care plans and generate automatic alerts and reminders. However, most of the care plans at the Primary Care Networks we visited were simple text documents that do not have these features.

The advantages of computer-generated alerts and reminders are profound—medical office assistants or care plan managers in the physician’s office can systematically identify and remind patients who are due for tests, and notify the physician and patient when a test result target is not met. Automation also allows physicians to monitor the status of care plans for all their patients at any time, and establishes a foundation for quality improvement and accountability for results of care provided.

Despite these key advantages, the department does not require that care plans be managed electronically in physician electronic medical record systems.

From the patient’s perspective, a care plan should be available online and through portable devices like smartphones. A physician system capable of sending secure electronic reminders and alerts to the patient is even more desirable. In high-performing healthcare systems, secure mobile communication with physicians, and portals allowing patients to access their care plans and track their progress, are commonplace.⁴⁷ These sophisticated systems act like a “healthcare GPS” by monitoring the patient’s progress and communicating with them if they get off track. These systems currently do not exist in Alberta, but are urgently needed.

Care plan coverage

The department has not defined the expected benefits of care plans or set targets for care plan delivery, and has no process in place to monitor results.

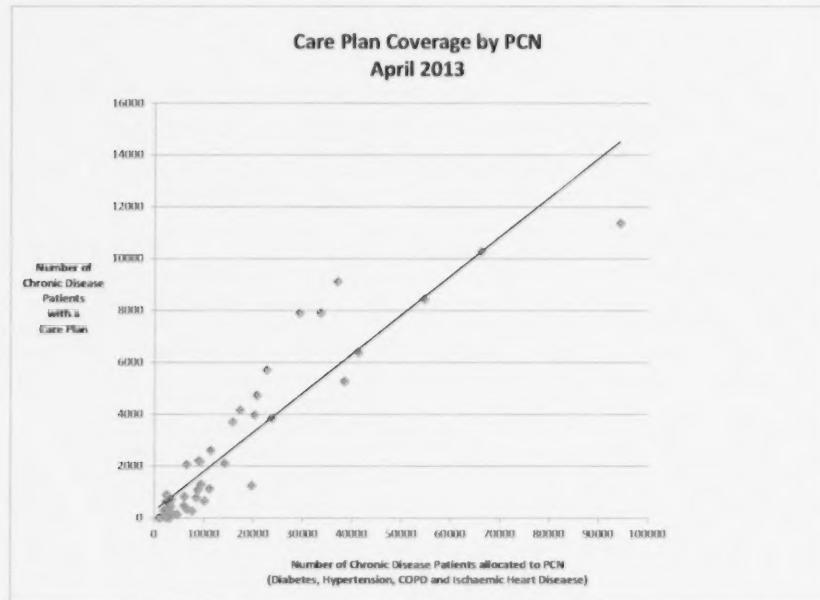
In 2012 the department hired a consultant to evaluate patient and provider satisfaction with care plans and to assess care plan coverage.⁴⁸ The consultant did not evaluate care plan effectiveness and the department has no system to do so on an ongoing basis. Evaluation would help identify potential improvements in the design or implementation of this initiative.

To identify which physicians are making the greatest use of care plans, the department could assess the volume and percentage of individuals with chronic disease receiving a care plan in various Primary Care Networks. We examined care plan billings for Primary Care Network physicians from 2009 through 2012 and found, overall, less than 20 per cent of qualifying individuals with chronic disease have a care plan prepared by a physician.

⁴⁷ For example, Kaiser Permanente in the U.S.

⁴⁸ Alliance for Canadian Health Outcomes Research in Diabetes, Family Physician Perceptions of Comprehensive Annual Care Plans, April 5, 2012.

There is also wide variation in physician care plan coverage between Primary Care Networks, as shown in the chart below.



In the chart, each dot represents one Primary Care Network. The trend line represents approximately 16 per cent coverage of care plans to patients with qualifying chronic diseases. Primary Care Networks above the line are preparing care plans for a higher proportion of their patients than Primary Care Networks below the line. One observation is that relatively smaller Primary Care Networks tend to have somewhat lower care plan coverage than larger ones.

We also found there is wide variation between physicians within each Primary Care Network. For example, in one large urban Primary Care Network, only 48 physicians billed for one or more care plans—the remaining 66 physicians did not bill for a care plan at all. For the physicians who billed for a care plan, the number of care plans ranged from 1 to over 400, and the percentage of their patients with chronic disease who received a plan ranged from less than one per cent to 78 per cent.⁴⁹

The low rate of care plan billings relative to the number of patients who could benefit from a care plan does not mean care plans are not in place—only that a care plan was not billed for. We heard from more than one Primary Care Network that some physicians do not bill for care plans because they receive assistance from Primary Care Network-funded team members in completing the plan, or they feel care plans are a regular part of the responsibility to their patients. The department has no process to identify how many patients may be receiving care plans in such cases, or who these patients are.

⁴⁹ For this analysis, individuals with chronic disease were those patients identified in one of the department's four chronic disease rosters and allocated to a particular physician by the Primary Care Network "four-cut" allocation method.

Evaluation of the care plan initiative

The department does not evaluate whether care plans are having an impact on the healthcare utilization and costs of the patients who have a plan, although the department and AHS both have the information to do such analysis.

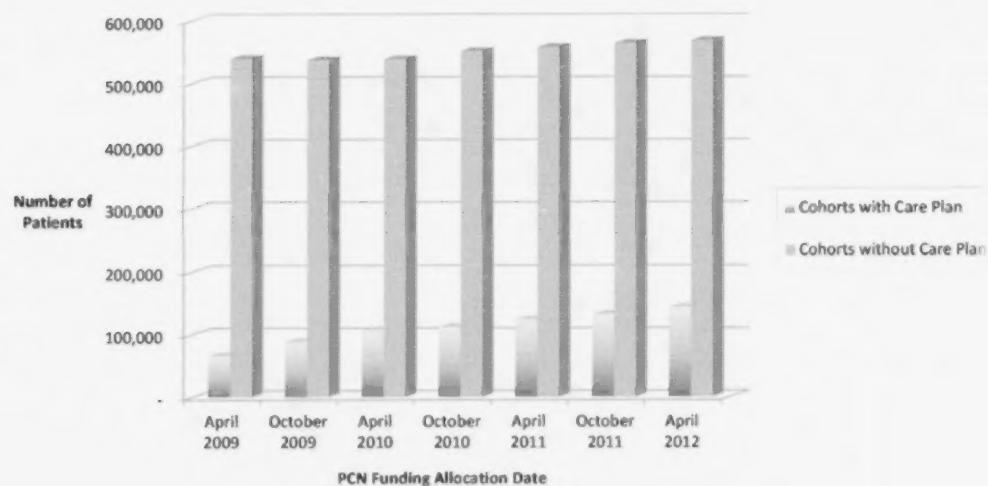
One of the main benefits expected from a care plan is reduced use of more expensive acute care services. By tracking individuals using their unique identifiers, total healthcare costs of patients with care plans can be compared to costs of similar patients without care plans. Comparisons would help funders and providers understand:

- whether care plans relate to better health outcomes for patients
- whether there are differences in costs between patients who have a care plan and those who do not, and how differences in costs may relate to outcomes.

Keeping pace with chronic disease

Only a small fraction of the patients who need a care plan receive one. The number of individuals with chronic disease who do not have a care plan is over 500,000 and rising because the incidence of new cases of chronic disease is outpacing care plan coverage.⁵⁰

The department has reason to be concerned about whether the rate of care plan adoption is adequate. The green bars in the chart below show the number of patients receiving care plans has increased since the initiative began. However, the blue bars show the number of patients without a plan has also increased.



Monitoring physician care plan billings

The department does not review physician care plan billings for reasonableness. It also does not audit or otherwise verify the existence or content of care plans to provide feedback to physicians on ways they could improve service delivery.

⁵⁰ Ibid.

Our finding in this regard is consistent with that of the department's consultant who interviewed a sample of family physicians across the province on the effectiveness of the care plan initiative. The consultant found physicians are generally very positive about the potential of care plans to improve care of patients with chronic disease. However, "a common theme among participating physicians was also concern about the abuse of the care plan billing code, and there was a strong call for audits of family physicians who bill for a plan."⁵¹

Our review of care plan billing data from April 1, 2009 to December 31, 2013 found over 2,700 cases where the physician claim for providing a care plan service listed only one qualifying diagnosis, rather than two as required by the Schedule of Medical Benefits. We also noted instances where some physician care plan billings in a day, month or year appeared very high relative to the average for family physicians as a whole.

We did not review any of these care plans, or attend the office of any physician for this purpose, so we have not concluded any billings were inappropriate. However, given the substantial investment in the care plan initiative and its potential to improve the care of individuals with chronic disease, we believe the department should monitor, and be seen to monitor, physician care plan claims more closely.

Integrating AHS CDM services with physician care plans

When patients with chronic disease are referred to its CDM programs, AHS does not have a formal process to obtain a patient's care plan from their physician to help ensure its services are consistent with the plan. AHS also has no process to update the plan for the services it provides.

Chronic disease patients of Primary Care Network physicians are increasingly receiving their basic CDM services from a care team in the Primary Care Network. Patients referred to AHS programs are typically patients of physicians who are not in a Primary Care Network, or patients whose condition has become more acute and requires specialized care provided by an AHS clinic. It is important for AHS to coordinate its services with those of the patient's physician to ensure consistency and continuity of care.

We saw an excellent example of how this approach could work in a visit to a Primary Care Network that uses the same electronic medical record system AHS has in its CDM clinics in the zone. When patients in this Primary Care Network attend an AHS clinic, the care team at AHS accesses the patient's entire medical record, including care plan, and enters information about its services directly into the same database and medical record the physician uses in the Primary Care Network clinic. In other words, both the physician and AHS are working from the same patient electronic medical record and everything done by either is accessible in real time by both.

This type of common, shared clinical information systems is a hallmark of a high-performing healthcare system. A unified clinical information and electronic medical record system in Alberta is one of the greatest potential areas for improvement in CDM and health care as a whole.

⁵¹ Ibid 48.

Implications and risks if recommendation not implemented

Care plans for patients with chronic disease are essential in establishing the link between the services healthcare providers deliver and the key role patients themselves must play in managing their chronic disease. Without adequate processes to support physicians and patients in developing and managing care plans effectively, the department may continue to invest substantial resources in this initiative without realizing the expected benefits.

Care plans prepared by pharmacists

Background

In July 2012 the department introduced a new program to pay pharmacists approximately \$100 per patient for preparing a comprehensive annual care plan for individuals with complex chronic disease conditions.⁵²

A care plan prepared by a pharmacist is similar to one prepared by a physician. It is completed in consultation with the patient and outlines the patient's medical history, current conditions and medications. It sets goals and timelines for physical activities, nutrition and medical tests recommended by the pharmacist and formally agreed to by the patient. The department intends pharmacist care plans to focus more specifically on managing the patient's medications.

Albertans with qualifying medical conditions are entitled to receive a pharmacist care plan without charge as part of their Alberta Health Care coverage.⁵³ The program is administered by Alberta Blue Cross, which pays pharmacists based on billings it receives from pharmacists. The department reimburses Alberta Blue Cross based on weekly invoices stating the volumes and types of services provided.

RECOMMENDATION 7: IMPROVE DELIVERY OF PHARMACIST CARE PLAN INITIATIVE

We recommend that the Department of Health improve the delivery of its pharmacist care plan initiative by:

- establishing a formal process to ensure pharmacists integrate their care plan advice with the care being provided by a patient's family physician and care team
- strengthening claims administration and oversight, including requiring pharmacists to submit diagnostic information showing patients qualify for a care plan, and making care plans subject to audit verification by Alberta Blue Cross
- setting expectations and targets for pharmacists' involvement in care plans and evaluating the effectiveness of their involvement on an ongoing basis

Criteria: the standards for our audit

The department should set expectations and targets for the involvement of pharmacists in care plans for patients with chronic disease. The department should have systems to measure the effectiveness of pharmacists' involvement in care plans and take action if expectations are not being met.

⁵² Pharmacists with Additional Prescribing Authority, a designation based on a pharmacist's training, can charge \$125 for a care plan and \$25 for a care plan follow-up assessment.

⁵³ Qualifying medical conditions for a pharmacist care plan are essentially the same as a physician care plan, except mental health issues are a Column A condition.

Our audit findings

KEY FINDINGS

- The Department of Health does not have a mechanism to integrate care plans prepared by pharmacists with care plans prepared by family physicians.
- In contrast to care plans prepared by physicians, the Department of Health has specified what pharmacist care plans should contain. However, the department has not set targets for care plan implementation.
- The Department of Health does not have a system to evaluate the quality or effectiveness of pharmacist care plans on an ongoing basis.
- The Department of Health does not have a system to verify pharmacist claims for care plan services, so it does not know which patients are receiving care plans, what chronic conditions they have, or whether claims comply with the criteria for payment.
- Alberta Health Services does not have a formal process to obtain a patient's care plan from their pharmacist, or to inform the pharmacist if it considers changes to the plan are necessary.

Integration with care plans prepared by physicians

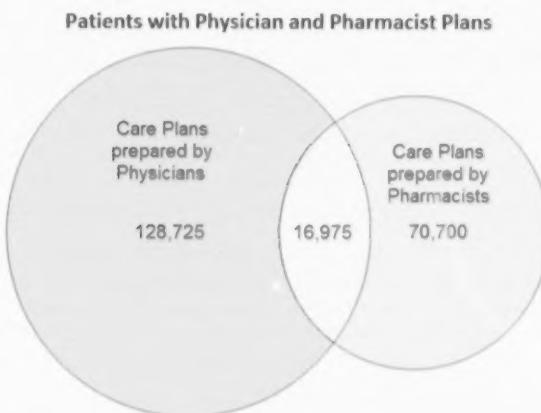
The department has not established a formal mechanism to integrate care plans prepared by pharmacists with care plans prepared by family physicians. Ideally, consultation should take place between pharmacists and physicians so the patient has a single care plan. Integration helps ensure patients are not harmed or confused by conflicting prescriptions or information. The department intends pharmacist care plans to complement physician care plans.

The Standards of Practice for pharmacists require them to take reasonable steps to communicate with a patient's family physician if the pharmacist is prescribing or modifying a patient's medication.⁵⁴ The department has instructed pharmacists who prepare care plans to ask patients whether their physician has also prepared a care plan, and try to obtain a copy of that care plan from the patient, or by mail or fax from the physician. However, patients may be uncertain whether they have a physician care plan, and there is no formal mechanism for pharmacists to know whether a physician's care plan is in place. Care plans prepared by physicians and pharmacists are not posted to the patient's electronic health record in the provincial Netcare system, nor is the fact a plan exists.

The lack of formal integration between care providers creates a large and growing potential for conflict. We compared physician care plan billings for the 18-month period from July 2012 to December 2013 with pharmacist care plan billings and found many pharmacist care plans appear to be reaching

⁵⁴ Sections 11.9 and 14.4 of the Alberta College of Pharmacists' Standards of Practice for Pharmacists and Pharmacy Technicians.

patients who do not currently have a physician care plan. We also found nearly 17,000 cases where patients had both types of plans. Formal consultation and integration should take place in each case.



Source: Alberta Blue Cross pharmacy claims data, July 1, 2012 to December 31, 2013

The care plans prepared by physicians and care teams in many Primary Care Networks have the benefit of input from a pharmacist employed by the Primary Care Network.⁵⁵ While some physicians have good working relationships with the pharmacists in their community, this is more difficult in larger centres.

On April 1, 2014 the department created a new fee code to pay physicians \$12 for a telephone consultation initiated by a pharmacist to seek advice or inform the physician when changes such as prescription adaptations, pharmacist-initiated prescriptions, care plans or medication reviews have occurred. The new fee code may help facilitate consultations, but will not ensure they take place.

Verifying pharmacist care plan billings

The department does not have a system to verify pharmacist care plan billings, or assess which patients are receiving care plans or the chronic diseases for which they are receiving them.

In examining program claims to date (July 1, 2012 to March 31, 2014), we found:

- less than one per cent of claims had two qualifying diagnoses as required
- no process is in place to audit pharmacist care plan claims

The department contracts with Alberta Blue Cross to administer pharmacy benefits for qualifying patients. Alberta Blue Cross submits a monthly invoice with the number of pharmacist care plans, follow-ups, and related services it has processed. The department checks the calculations and pays the invoice, but does not review the actual claims supporting the charges. As a result, the department does not know which patients are receiving care plans or what chronic diseases they have.

As part of administering pharmacy claims, Alberta Blue Cross conducts periodic audits of pharmacies to verify drug costs are accurate and legitimate. These audits do not currently examine pharmacist care plans. As a result, the department has no assurance care plan services have been performed for the payments it is making.

⁵⁵ Pharmacists employed by a Primary Care Network are not allowed to bill for a pharmacist care plan.

Evaluating care plan quality and effectiveness

The department does not have a process to evaluate the quality of care plans provided by pharmacists or measure the effectiveness of these plans on an ongoing basis.

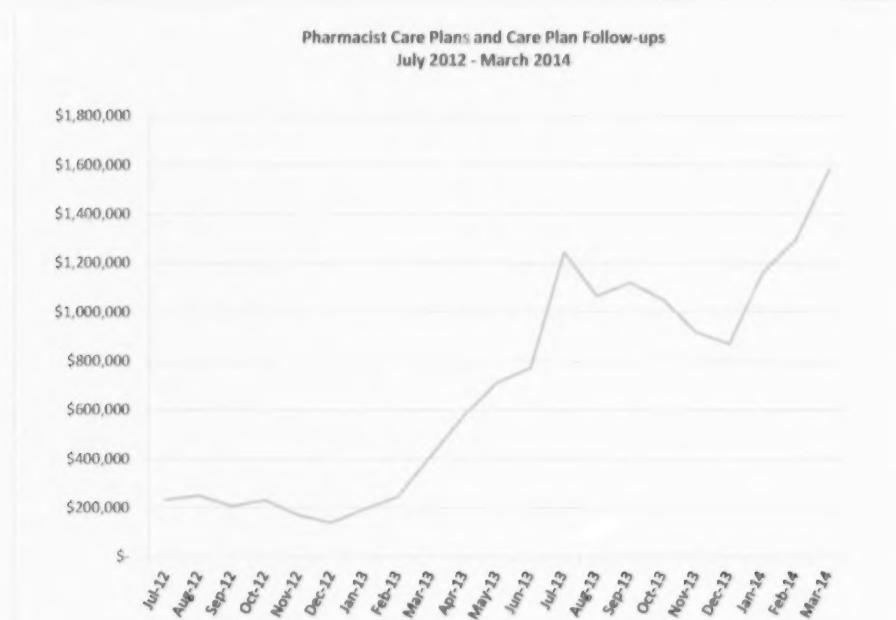
The department does not require pharmacists who provide a care plan to monitor the patient's condition or care plan as their medication therapy progresses. Contrary to its name, a pharmacist "comprehensive annual care plan" is often just a point-in-time assessment. The Compensation Plan for Pharmacy Services allows pharmacists to bill a \$20 or \$25 fee for an in-person or telephone follow-up encounter with a patient who has:

- been discharged from hospital within 14 days of the follow-up
- been referred to the pharmacist by a healthcare professional other than another pharmacist, or
- been instructed by the pharmacist to have a follow-up.

We found pharmacists across the province frequently charge for follow-up assessments after a comprehensive annual care plan is in place. For example, in the 2012–2013 benefit year ended June 30, 2013, approximately one-third of the 35,948 pharmacist care plans had one or more follow-up assessments, and these 10,582 plans averaged 2.5 follow-ups during the year.

The department needs to evaluate whether the combination of initial care plans and follow-up assessments is providing the level of care and value-for-money intended when the initiative was created. Evaluation is critical due to the potential significance of these plans to individuals with chronic disease, as well as the substantial investment the department is making in this initiative.

As shown below, pharmacist care plan billings have grown rapidly since they began in July 2012.



Source: Alberta Blue Cross pharmacy claims data, July 1, 2013 to March 31, 2014

The department spent over \$12.3 million for pharmacist care plans and follow-ups in 2013–2014. At the current rate of growth, we estimate the department will spend over \$20 million on these services in 2014–2015. We estimate the department will spend a further \$3 million in 2014–2015 on related Standard Medication Management Assessments and follow-ups, which are growing at virtually the same rate as care plans.⁵⁶

The department hired a consultant in 2013 to determine how the initiative affected pharmacists, patients and the healthcare system in its first year of operation. The consultant's report compiled statistics for the first year, but left open the question of how the initiative should be evaluated.⁵⁷ No other evaluation has been done.

Implications and risks if recommendation not implemented

Pharmacist care plans represent a substantial investment by the department and have potential to benefit individuals with chronic disease. However, without a formal process to integrate these plans with physician care plans, patients may receive confusing or conflicting advice and their health may suffer as a result. Without a system for assessing whether pharmacists' billings are appropriate, and care plans are achieving expected results, the department has no assurance it is receiving value for its investment.

INFORMATION TECHNOLOGY TO SUPPORT CHRONIC DISEASE MANAGEMENT

Information technology is being used increasingly in health care to increase efficiency, improve the quality of care, and improve health outcomes. Across the healthcare system, there are three major inter-related types of health records:

- **Electronic medical records**—An electronic medical record is a computerized version of a patient's medical chart. It contains a history of the patient's visits to a physician and related services including diagnoses, test results, procedures, medications and referrals. Electronic medical records help physicians and care teams treat individuals with chronic diseases in accordance with recommended care guidelines.
- **Electronic health records**—An electronic health record also contains a patient's medical history, but is broader than a single electronic medical record because it includes information from multiple providers and care settings. Alberta's Netcare is an electronic health record system allowing providers to share patient information to speed service, reduce errors, and avoid duplication. Netcare is nationally recognized for its power and innovation—it draws key data elements from dozens of different information systems across Alberta to provide over 90 per cent of hospital, lab, diagnostic imaging, and pharmacy information in a common format.
- **Personal health records**—A personal health record is an electronic application used by patients to view and manage their own health information by accessing their electronic medical record or electronic health record through a secure internet portal. Personal health records help individuals with chronic disease to better and more easily self-manage their health condition.

⁵⁶ SMMAs and follow-ups pay pharmacists \$60 or \$75 for initial assessment and \$20 or \$25, depending on their prescribing authority, for follow-up assessment of patients with a chronic disease currently taking three or more Schedule 1 drugs or insulin.

⁵⁷ Health Benefits and Compliance Division - Alberta Health, Evaluation of the Compensation Plan for Pharmacy Services, October 10, 2013.

Electronic medical records

Background

High-performing healthcare systems recognize that full-featured electronic medical records are essential to effective CDM. Beyond being simple billing and scheduling tools, electronic medical records with advanced capabilities are a key enabler of effective CDM. They can:

- provide decision support at the point of care by reference to good clinical practice
- track patient histories relative to care plans
- automatically generate alerts and reminders for recommended care
- support increased coordination of care between healthcare professionals
- generate reports to measure quality of care and patient outcomes

In 2001 the department created the Physician Office System Program to encourage and assist physicians to adopt electronic medical records. The program ended March 31, 2014. The Physician Office System Program was managed jointly by the department and the Alberta Medical Association. Since 2006–2007, the department has spent over \$300 million on this program.

The Physician Office System Program funding covered up to 70 per cent of a physician's eligible electronic medical record costs, meaning physicians in total have also invested over \$125 million in electronic medical record hardware and software over the same period, plus additional resources in staff training. Nearly half of eligible physicians have received funding under the program. The program has helped Alberta achieve the highest electronic medical record adoption rate in Canada—over 70 per cent of family physicians in the province now use electronic medical records.⁵⁸

RECOMMENDATION B: STRENGTHEN ELECTRONIC MEDICAL RECORD SYSTEMS

We recommend that the Department of Health strengthen support to family physicians and care teams in implementing electronic medical record systems capable of:

- identifying patient-physician relationships and each patient's main health conditions and risk factors
- tracking patient care plans and alerting physicians and care teams when medical services are due, and health goals or clinical targets are not met
- appropriately and securely sharing patient health information between authorized healthcare providers
- reporting key activity and outcome information for selected patient groups (e.g., diabetics) as the basis for continuous quality improvement

Criteria: the standards for our audit

The department should have systems to make effective use of information technology in the delivery of CDM services. These systems should provide support to physicians and care teams, and integrate information technology to allow appropriate sharing of patients' information among their healthcare providers.

⁵⁸ Health Annual Report 2012–2013, page 30.

Our audit findings

KEY FINDINGS

- More than a dozen different electronic medical record systems are used by family physicians and these systems have limited or no ability to communicate with each other.
- Clusters of excellence in the use of electronic medical records are emerging among family physicians, but most physicians do not currently use their systems to manage care plans, maintain a chronic disease registry, or measure and report chronic disease management performance.
- The Department of Health has not renewed the Physician Office System Program to support enhanced use of electronic medical records by physicians who currently have them, or to help the remaining physicians adopt electronic medical records.
- The Department of Health, Alberta Health Services and other physicians do not have access to information in physician electronic medical records. While many physician electronic medical record systems can download certain healthcare information from Netcare, these records are not able to upload information to Netcare.

Information technology to support chronic disease management

As we noted in our 2012 audit on Primary Care Networks, family physicians in Alberta vary widely in their ability to use electronic medical records to analyze and manage the health of their patient populations, develop and automate chronic disease patient care plans, and measure and report care quality and patient outcomes.

Clusters of excellence in the use of electronic medical record technology are emerging among family physicians in Alberta. We found some physicians use their electronic medical record systems to identify their patient panels, manage care planning for their patients, access decision support tools such as clinical practice guidelines and care pathways, and measure and report the effectiveness of the care they provide. However, the majority of family physicians are not able to use their electronic medical records to perform these functions.

Electronic medical records in Primary Care Networks

There are currently at least 12 different electronic medical record systems in use by family physicians across Alberta's Primary Care Networks.⁵⁹ Each is a stand-alone system in the sense that it cannot share information directly with other electronic medical record systems. Recent consolidations in the electronic medical record vendor industry have resulted in one vendor having 60 per cent of the market for its three electronic medical record systems, but there is still considerable diversity across the province.

Some Primary Care Networks have developed separate systems to extract common data elements from their various physician electronic medical records to provide information on the Primary Care Network overall (e.g., to identify the number of diabetics each physician cares for, and the percentage of those patients who have current blood test results on file).

⁵⁹ Systems, in no particular order, include Telus Wolf, Telus MedAccess, Telus Practice Solutions, Epic eCLINICIAN, JonokeMed, OptiMed, Microquest, ClinCare, EMIS, Nightingale, OSCAR and Telin.

Information sharing

The department, AHS and other physicians do not have access to information in physician electronic medical records. While many physician electronic medical record systems can receive information from the provincial electronic health record system (Netcare), the department did not require that Physician Office System Program-approved electronic medical records have the functionality to communicate information to Netcare.

More recently, AHS's Measurement Capacity Initiative assembled leaders from 25 Primary Care Networks to design a data set of key information they deemed to be useful to share among providers. However, there is currently no mechanism to build and share these datasets among healthcare providers.

The department has recently begun funding efforts with the vendor that represents 60 per cent of electronic medical record systems in Alberta. The goal is to integrate these electronic medical records with Netcare to support two-way information sharing that includes uploading of individuals' care plan information. Sharing of healthcare information from physician electronic medical records to Netcare has been a focus of the department's Shared Health Record project set for release in late 2014. The department has agreement from the College of Physicians and Surgeons of Alberta that will allow sharing of physician service event information, patient and practitioner identifiers, public/population health information and immunizations. This information has been needed for many years.

The department indicates that, to date, there has been little interest from the electronic medical record vendor community in providing the features that would access two-way information sharing. The department believes the lack of interest may be because development costs are borne by the vendor, and there has been limited desire on the part of care providers to share information from their electronic medical records.

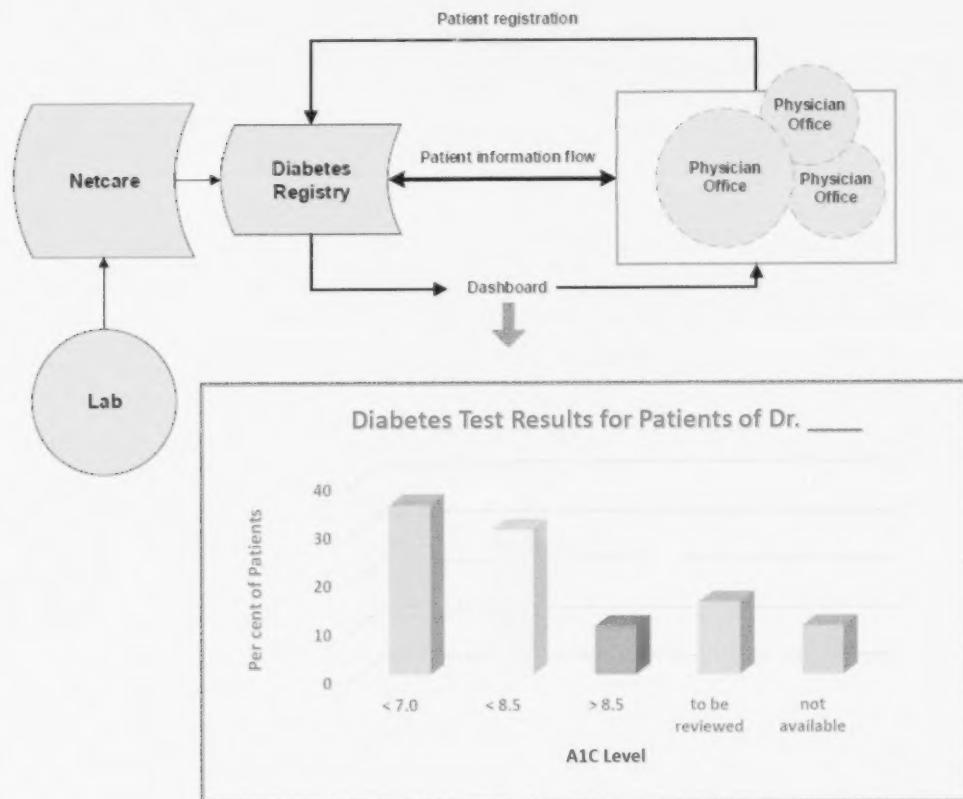
Centralized systems to support CDM

A former regional health authority developed a central diabetes registry still used in one AHS zone. The system has features that offer potential to fast-track improvement in CDM province-wide. A similar system was developed in B.C. and is currently used in Saskatchewan.⁶⁰ Since 2013, Saskatchewan has leveraged the features of this system to provide support for a quality improvement incentive program that provides incentives to physicians for managing the care of their patients with chronic disease.

The system is maintained centrally by AHS. Patient information is stored securely and can be accessed only by authorized care providers. To enroll a patient into the registry, a physician enters the patient's basic information. From that point, lab results (e.g., blood sugar levels) are automatically sent to the physician for review and updated into the registry. When the physician, or a person on the patient's care team, logs into the registry through Netcare, they can view dashboard reports showing the state of the physician's entire panel of diabetes patients in terms of their current test results.

⁶⁰ The CDM Toolkit is a secure web-based registry of patient medical information, allowing authorized healthcare providers to access the information. It has flow sheets for recommended care of various chronic diseases, tracks patient progress and provides reminders to providers to perform required tests.

Other reports flag individual patients who are overdue for tests or whose results are outside the desired target level. Individual patients' results are also tracked over time to show the progress of their care.



This registry is the type of system the department hopes all physicians will develop and implement themselves. However, progress that relies on individual physicians or physician groups, if it happens, will be slow and inefficient. Even if electronic medical record-specific solutions could be developed, the process would require multiple solutions—one for each of the major electronic medical record systems currently used by family physicians.

We believe the department has the opportunity to take a leadership role in deploying a unified clinical information system in Alberta, including electronic medical records in physician offices. By building on physicians' current good practices and working collaboratively going forward, a common electronic medical record system could better meet the needs of patients, providers and the department.

Implications and risks if recommendation not implemented

A unified information system capable of sharing patient information securely and appropriately between healthcare providers is an essential feature of a high-performing healthcare system. Without renewed support and investment in electronic medical record systems, the department may fail to leverage the substantial investments that have been made to date. It will also jeopardize the foundation for sustained improvement in patient panel identification, care planning, and quality measurement going forward.

Personal health records

The concept of a personal health record has existed in Canada for more than a decade. In 2002 the Romanow Report recommended individual Canadians be given ownership of their personal health information, ready access to their personal health records, and better access to information about health and the health system.⁶¹

AHS operates the MyHealthAlberta.ca website on behalf of the ministry. The department has led policy development and AHS has provided technical and operations capacity. The project began in 2008 and has incurred costs of more \$30 million to date. Also known as the personal health portal, the website currently provides only general health information, including information on chronic diseases.

RECOMMENDATION 9: PROVIDE INDIVIDUALS ACCESS TO THEIR PERSONAL HEALTH INFORMATION

We recommend that the Department of Health provide individuals with chronic disease access to the following personal health information:

- their medical history, such as physician visits, medications and test results
- their care plan, showing recommended tests, diagnostic procedures and medications, including milestone dates and targets set out in the plan

Criteria: the standards for our audit

The department and Alberta Health Services should have systems to provide patients with access to their personal healthcare information related to services received from physicians and from AHS.

Our audit findings

KEY FINDINGS

- The Department of Health does not currently provide individuals with electronic access to their personal healthcare information relating to services received from physicians.
- Alberta Health Services does not currently provide patients with electronic access to any of their personal healthcare information relating to services received from Alberta Health Services (hospital, lab, etc.).
- The Department of Health has not developed or supported systems for secure communication between physicians and patients including email and text messaging.

Personal health portal

In May 2011 the department publicly launched the MyHealth.Alberta.ca website to provide reliable health information and useful tools to Albertans through the internet. The site's health information content was developed in consultation with health professionals.

The project has not met some key delivery targets and milestone dates:

- In the fall of 2012 the department stated personal health records would be available by the end of that year, including dispensed medication information from the provincial pharmacy network.⁶²
- Alberta's 5-Year Health System IT Plan stated that, by March 31, 2013 "the Personal Health Portal will include validated public authentication and access to some lab and clinical information online."
- The launch date was delayed when a late change was required to the identity management software used to ensure users are authorized to access information. Feedback from users in the pilot phase also recommended enhancements to improve the portal's ease of use.

Becoming the Best: Alberta's 5-Year Health Action Plan set an objective to provide online access for Albertans to personal clinical health information by March 2015. The department and AHS are working to

⁶¹ Romanow Commission, Building on Values: The Future of Health Care in Canada (Recommendation 10), November 2002.

⁶² Department of Health, Alberta's Personal Health Portal and Personal Health Record Platform, Alberta Network for Health Information eXchange (ANHIX), September 2012.

meet this target. A pilot project to provide a limited group of cardiac patients' access to personal health record and community dispensed drug information was planned for December 2012 and started in February 2013. Lessons learned from this pilot project will be incorporated in the wider personal health record project to provide information to all Albertans.

The department indicates that, in the fall of 2014, the MyHealth.Alberta.ca portal will allow patients to sign in securely and view parts of their electronic health record in Alberta Netcare (i.e., community pharmacy dispensed medications). Future plans, for which target dates have not been made public, are also in development:

- A mid-term goal is to add other valuable records, including clinical lab test results and other diagnostics. Devices such as blood pressure and blood glucose monitors will also be able to upload data to the patient's record.
- A long-term goal is to change the way patients interact with the healthcare system, by adding online appointment booking capabilities, waitlist timelines, and secure electronic messaging between patients and healthcare providers.

The department hopes this application will become an increasingly key support for patients in self-managing their chronic diseases.

Remote communication between patients and physicians

In many cases, medical services for issues such as minor ailments, prescription refills and laboratory or diagnostic updates can be more efficiently and effectively provided by phone or secure email. However, while some small pilot projects have been undertaken, this technology is not generally available in Alberta. There is also no mechanism to pay physicians for care provided directly to patients via channels other than direct personal contact.

The department indicates it is working to develop a secure messaging strategy for Alberta. The strategy will not be limited to physicians. It needs to include access to all care team members as well as the ability for the public to interact with their healthcare team.

Implications and risks if recommendation not implemented

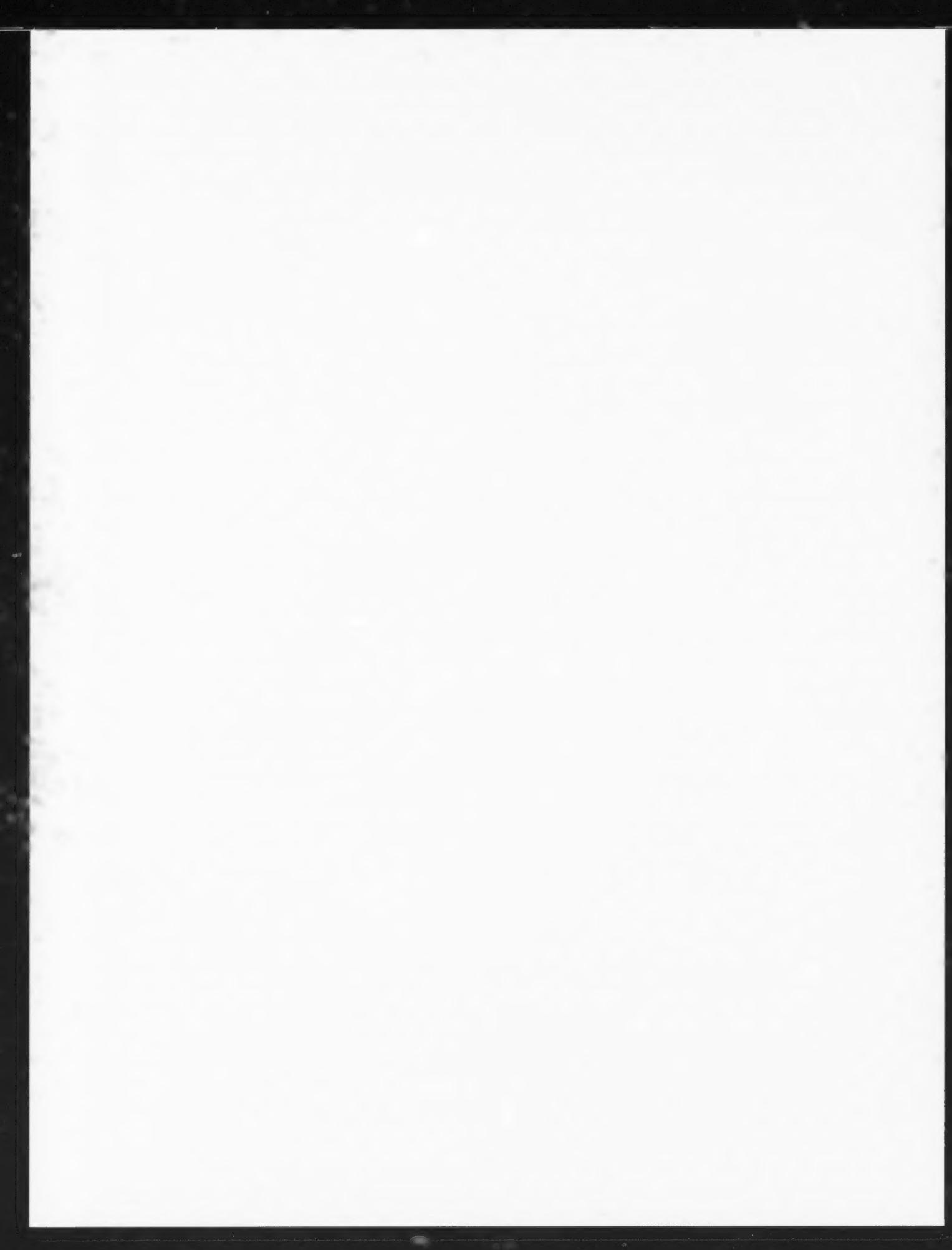
For effective self-management, individuals with chronic disease need ready access to their personal health record and care plan. The technology to provide this information securely is readily available and widely used in high-performing healthcare systems. It is also available in many other areas of our daily lives, including personal banking, education and access to government programs. Until such access is provided, the ministry perpetuates a provider-driven CDM approach that fails to fully engage the most powerful asset of all—the patients themselves.



High Performing Healthcare System Chronic Disease Management Attributes

APPENDIX A

September 2014



HIGH PERFORMING HEALTHCARE SYSTEM

CHRONIC DISEASE MANAGEMENT ATTRIBUTES

The following table places our findings in the context of the differences between CDM service delivery in a high performing healthcare system and the current state of CDM services in Alberta.¹

HEALTHCARE SYSTEM FEATURE	HIGH PERFORMING HEALTHCARE SYSTEM	ALBERTA'S CURRENT HEALTHCARE SYSTEM
Patient-physician relationship	<p>Patients are free to choose their family physician in the system.</p> <p>Every person is able to find a family physician.</p> <p>A formal process exists to ensure every person is assigned a family physician.</p>	<p>Patients are free to choose their family physician in the system.</p> <p>Some Albertans cannot find a family physician in their community.</p> <p>AHS has a mandate to provide services to Albertans who want a family physician but cannot find one. AHS has no process to identify these people.</p>
Care plans	<p>Every patient has the opportunity to have a care plan, ranging from simple (e.g., vaccinations and routine screening) to complex (e.g., chronic disease).</p> <p>Care plan standards exist and decision support tools are provided to help care teams develop care plans that incorporate providers' clinical expertise, evidence-based medicine, and the patient's values in setting realistic goals and targets.</p> <p>Care plans are required to be monitored. Computer generated alerts prompt care teams to proactively remind patients when procedures are due, and take action when targets are not met.</p>	<p>The department pays physicians and pharmacists if they provide a care plan to individuals with chronic disease, but care plans are not required. Less than 20 per cent of individuals with chronic disease in Alberta have a care plan.</p> <p>The department expects care plans to follow good medical practice. No support tools are provided to help physicians and care teams or pharmacists develop care plans, although some physicians have developed their own tools.</p> <p>The department expects care plans to be monitored, but most care plans are not managed electronically so there is no systematic way for care teams to receive reminders and alerts. The onus is primarily on the patient to monitor their own plan.</p>
	<p>Adherence to care plans is measured centrally and reported to physicians to evaluate performance and help improve patient care.</p>	<p>The department expects individual physicians and Primary Care Networks to evaluate their own performance and improve patient care. There is no central oversight or accountability for results mechanism.</p>

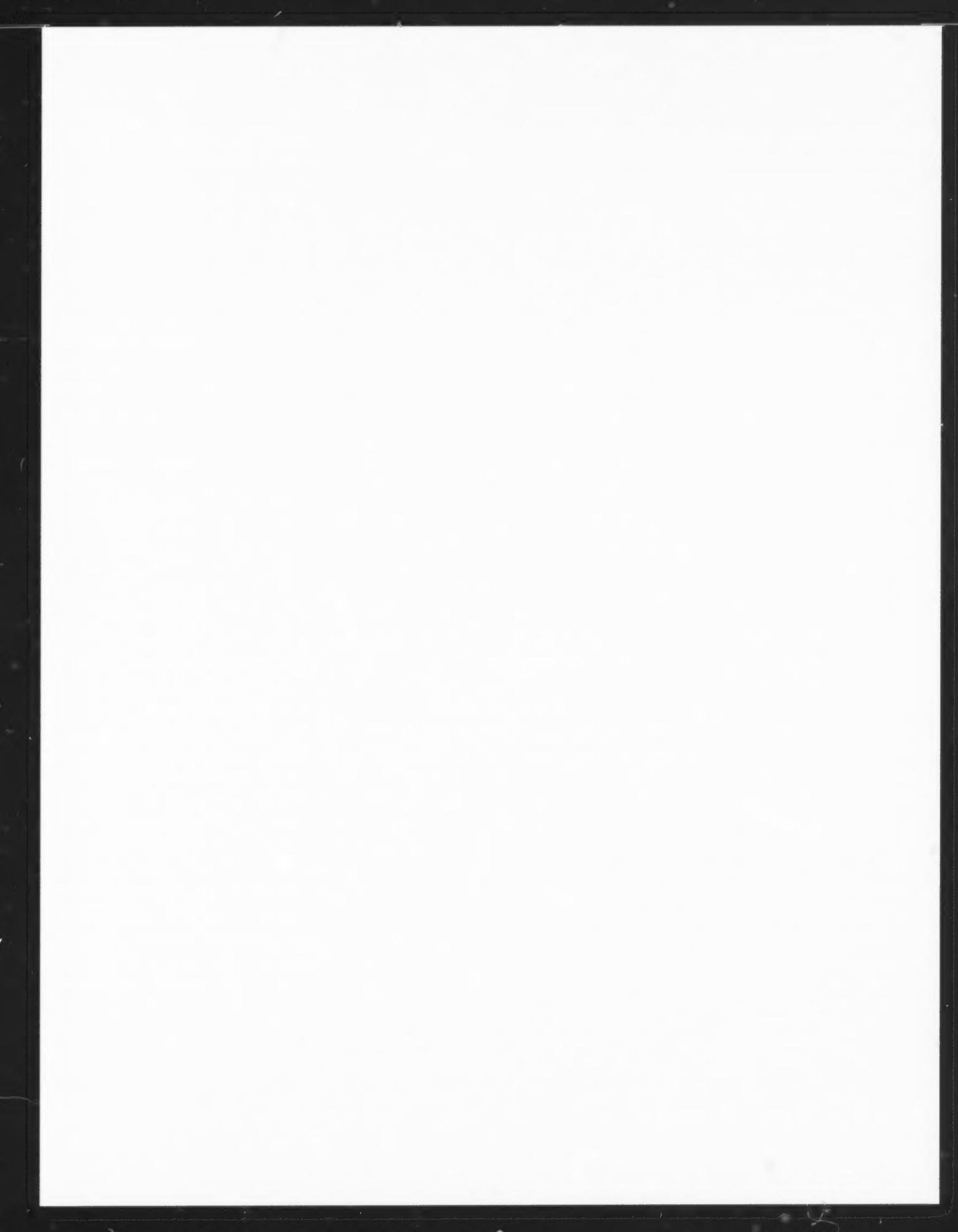
¹ We used the ministry's Primary Health Care Strategy (May 2014) and various real-world sources to compile the attributes of a high performing healthcare system, including Kaiser Permanente, the U.K. National Health Service, and the U.S. Veterans Administration.

HEALTH—CHRONIC DISEASE MANAGEMENT

HEALTHCARE SYSTEM FEATURE	HIGH PERFORMING HEALTHCARE SYSTEM	ALBERTA'S CURRENT HEALTHCARE SYSTEM
Multi-disciplinary teams	<p>Every family physician is linked with a care team that provides complementary healthcare services (e.g., nurse practitioner, nurse, pharmacist, dietitian, exercise therapist, mental health counsellor)</p> <p>Standards of care set out the mix of healthcare services to be provided to patients with various conditions.</p>	<p>The department expects AHS and Primary Care Networks to coordinate development of care teams across the province. No formal process exists to link non-Primary Care Network physicians with AHS or Primary Care Network services.</p> <p>The department expects AHS and Primary Care Networks to determine and provide the appropriate mix of healthcare services to individuals with various conditions. The department has not set expectations for the level of care patients are to receive, and the size and composition of care teams varies widely among Primary Care Networks.</p>
	<p>The aggregate healthcare needs of the population are assessed and the healthcare workforce is deployed accordingly.</p>	<p>The department expects AHS, physicians, and Primary Care Networks to determine the healthcare needs of the population. These providers do not have a process to determine this information. There is no system to ensure the healthcare workforce is deployed on a consistent and equitable basis to ensure patients have access to comparable levels of care wherever they live.</p>
Electronic medical record systems	<p>Standardized, state-of-the-art electronic medical records are provided to physicians and care teams.</p> <p>All physicians and care teams are required to use the organization's single, shared electronic medical record system.</p>	<p>The department has provided substantial funding to help physicians acquire electronic medical records and developed standards of functionality to qualify for funding. It expects physicians to select and install their own electronic medical records from an approved vendor.</p> <p>The department expects all physicians will use electronic medical records, but less than 80 per cent of family physicians currently do. At least 12 different electronic medical record systems are currently used by family physicians in Alberta.</p>
	<p>Electronic medical records communicate patient healthcare information seamlessly and securely between providers within the system, improving the timeliness, efficiency and effectiveness of service delivery.</p>	<p>The department expects physicians to communicate patient information with other providers. However, current electronic medical record systems generally do not have the capability to share this information electronically or securely.</p>

HEALTH—CHRONIC DISEASE MANAGEMENT

HEALTHCARE SYSTEM FEATURE	HIGH PERFORMING HEALTHCARE SYSTEM	ALBERTA'S CURRENT HEALTHCARE SYSTEM
Personal health records and individual self-management supports	Patients have instant, secure access to their care plan, current medications, and complete medical history at any time.	The department began investing in personal health record systems in 2008, but no system is currently available to allow Albertans online access to their medical history, care plan, or medications.
	Patients can communicate with their physician and care team through secure electronic means (e.g., email), improving the timeliness of information and reducing unnecessary in-person visits.	The department has no system to allow individuals to communicate with their physician and care team through secure electronic means, and no process to compensate physicians for care delivered in this manner.
	Patients have online access to healthcare educational material relevant to their condition.	The department has a website that provides healthcare information on a broad range of topics, some of which may be relevant to the individual's condition.





Legislation and Agreements

APPENDIX B

September 2014



LEGISLATION AND AGREEMENTS

Legislation governing the department

The department's existence and authority flows from the *Government Organization Act*. Under Section 8 of the Act, the Minister of Health is given broad powers to establish or operate any programs and services the minister considers desirable in order to carry out matters under the minister's administration, and may institute inquiries into and collect information and statistics relating to any matter under the minister's administration. Under Section 10 of the Act, the minister may enter into agreements on or in connection with any matter under the minister's administration.

The minister is also responsible, or jointly responsible with one or more other ministers, for the administration of 48 statutes and 144 regulations pursuant to those statutes. For purposes of administering chronic disease management in the province, key legislation includes the *Regional Health Authorities Act*, the *Health Professions Act*, the *Health Care Insurance Act*, the *Health Information Act* and the regulations related to these statutes.

Legislation governing AHS

AHS has the general responsibility and authority to provide healthcare services in the province.

Under Section 3 of the *Alberta Health Act*, AHS is “responsible for delivering health services.”

Under Section 5 of the *Regional Health Authorities Act*, AHS is required to:

- promote and protect the health of the population in Alberta and work toward the prevention of disease and injury,
- assess on an ongoing basis the health needs of Alberta,
- determine priorities in the provision of healthcare services in Alberta and allocate resources accordingly,
- ensure reasonable access to quality healthcare services is provided throughout Alberta, and
- promote the provision of healthcare services in a manner that is responsive to the needs of individuals and communities and supports the integration of services and facilities in Alberta.¹

Legislation and agreement governing physicians

The relationship between physicians and the department is set out in the Alberta Medical Association Agreement between the department and the AMA. It states simply that physicians will be compensated for providing Insured Medical Services, wherever those services are provided, at the rates set out in the Schedule of Medical Benefits and Alternative Relationship Plans.²

¹ These statements also appear in the Alberta Health Services—Mandate and Roles Document, December 2010.

² The Schedule of Medical Benefits defines fee-for-service rates for insured services. A clinical Alternative Relationship Plan compensates a physician for providing a set of clinical services at defined facilities to a target population (e.g., a capitated amount per patient), while an academic Alternative Relationship Plan compensates a physician who teaches or does research at an Alberta university or medical facility. The AMA Agreement also provides for additional funding from the department for various physician support and physician assistance programs.

Under Section 7 of the *Alberta Health Act*, professional colleges are responsible for regulating the activities of their members. Under Section 3 of the *Regulated Professions Act*, a college must:

- provide direction to and regulate the practice of the regulated profession by its regulated members,
- establish, maintain and enforce standards for registration and of continuing competence and standards of practice of the regulated profession, and
- establish, maintain and enforce a code of ethics for the profession.

Under the *Health Professions Act*, the conduct of physicians is regulated by the College of Physicians and Surgeons of Alberta. The college has issued the Standards of Practice—the minimum standard of professional behavior and good practice expected of Alberta physicians. The standards deal with the practice of medicine. The college has also issued a Code of Conduct dealing with physicians' interactions with patients, colleagues, fellow workers and the public. The college's Code of Ethics is consistent with the Canadian Medical Association's Code of Ethics. The Code of Conduct and Code of Ethics complement the Standards of Practice.

Legislation and agreement governing Primary Care Networks

Primary Care Networks were established under the Tri-lateral Master (Physician Funding) Agreement between the department, AHS, and the Alberta Medical Association, in effect from April 1, 2003 to March 31, 2011.

Primary Care Networks are currently addressed in the Primary Medical Care/Primary Care Networks Consultation Agreement, which is an addendum to the current AMA Agreement in effect from April 1, 2011 to March 31, 2018. The Consultation Agreement:

- establishes a Primary Care Networks Committee with representatives from the department, the AMA, and AHS to provide ongoing advice on policy and issues relating to Primary Care Networks. The Primary Care Networks Committee is an advisory body reporting to the Minister of Health.
- tasks the Primary Care Networks Committee with review and provision of advice on changes to the Primary Care Network per capita funding amount on an annual basis. The current funding to Primary Care Networks is \$62 per patient per year. This review process contains provisions for non-binding dispute resolution.

The Consultation Agreement commits the parties to develop a framework for Primary Care Network evolution, including:

- consideration of how this evolution will link with the broader provincial primary care strategy.
- contributing to a common accountability framework for Primary Health Care, including Primary Care Networks.
- working together to establish areas where standardization would be of benefit across all provincial Primary Care Networks (e.g., minimum outcome expectations). The parties will also review and advise on any necessary Primary Care Network specific policies deemed necessary to ensure high functioning Primary Care Networks consistent with policies established by the Minister of Health.

In return, the department agrees to consult with the AMA on primary healthcare strategy and policy development.

Legislation and agreement governing pharmacists

The compensation plan for pharmacy services in Alberta, including prescribing medication, dispensing medication, developing care plans and other services is set out in Ministerial Order 23/103. A memorandum of understanding between the Alberta Health and the Alberta Pharmacists' Association affirms that the rates to be paid under the Compensation Plan for Pharmacy Services in the ministerial order shall remain in effect from October 1, 2013 to March 31, 2018, unless otherwise modified under the memorandum.

The ABC-Pharmacy Agreement is an agreement between Alberta Blue Cross and individual pharmacies that defines how and when pharmacies will be paid for dispensing medications and providing other pharmacy services on behalf of Alberta Blue Cross.

Under the *Health Professions Act*, the conduct of pharmacists is regulated by the Alberta College of Pharmacists. The college has issued the *Standards of Practice for Pharmacists and Pharmacy Technicians*, *Standards for the Operation of Licensed Pharmacies*, and *Code of Ethics*. Together, they set out the practices pharmacists are required to follow.

Legislation governing the sharing and security of healthcare information

Legislative provisions governing the sharing and security of healthcare information are set out in the *Health Information Act*. Section 2 of the Act sets out the purposes of the statute, including:

- to establish strong and effective mechanisms to protect the privacy and confidentiality of individuals' health information
- to enable health information to be shared and accessed, where appropriate, to provide healthcare services and to manage the healthcare system
- to prescribe rules for the collection, use and disclosure of health information, which are to be carried out in the most limited manner and with the highest degree of anonymity possible in the circumstances
- to provide individuals with a right of access to health information about themselves, subject to limited exceptions set out in the Act.

With respect to sharing healthcare information between providers who are caring for a patient, and between providers and the department or AHS, Sections 27 and 35 of the Act allow disclosure of diagnostic, treatment and care information by a custodian to another custodian for the purpose of providing healthcare services.³ Information can also be shared with the department and AHS for internal management purposes, including planning, resource allocation, policy development, quality improvement, monitoring, audit, evaluation, reporting and obtaining or processing payment for healthcare services and human resource management.

With respect to patients accessing their own healthcare information, for example through a personal health portal, Section 33 of the Act allows custodians to disclose individually identifying health information to the patient or an individual authorized by the patient.

³ A custodian is defined in the *Health Information Act* as:

- a health services provider who is designated in the regulations as a custodian (e.g., a health professional identified under the *Health Professions Act*)
- the department, AHS, and the Minister of Health
- a licensed pharmacy
- certain other entities listed in the Act such as ambulance operators and the Health Quality Council of Alberta

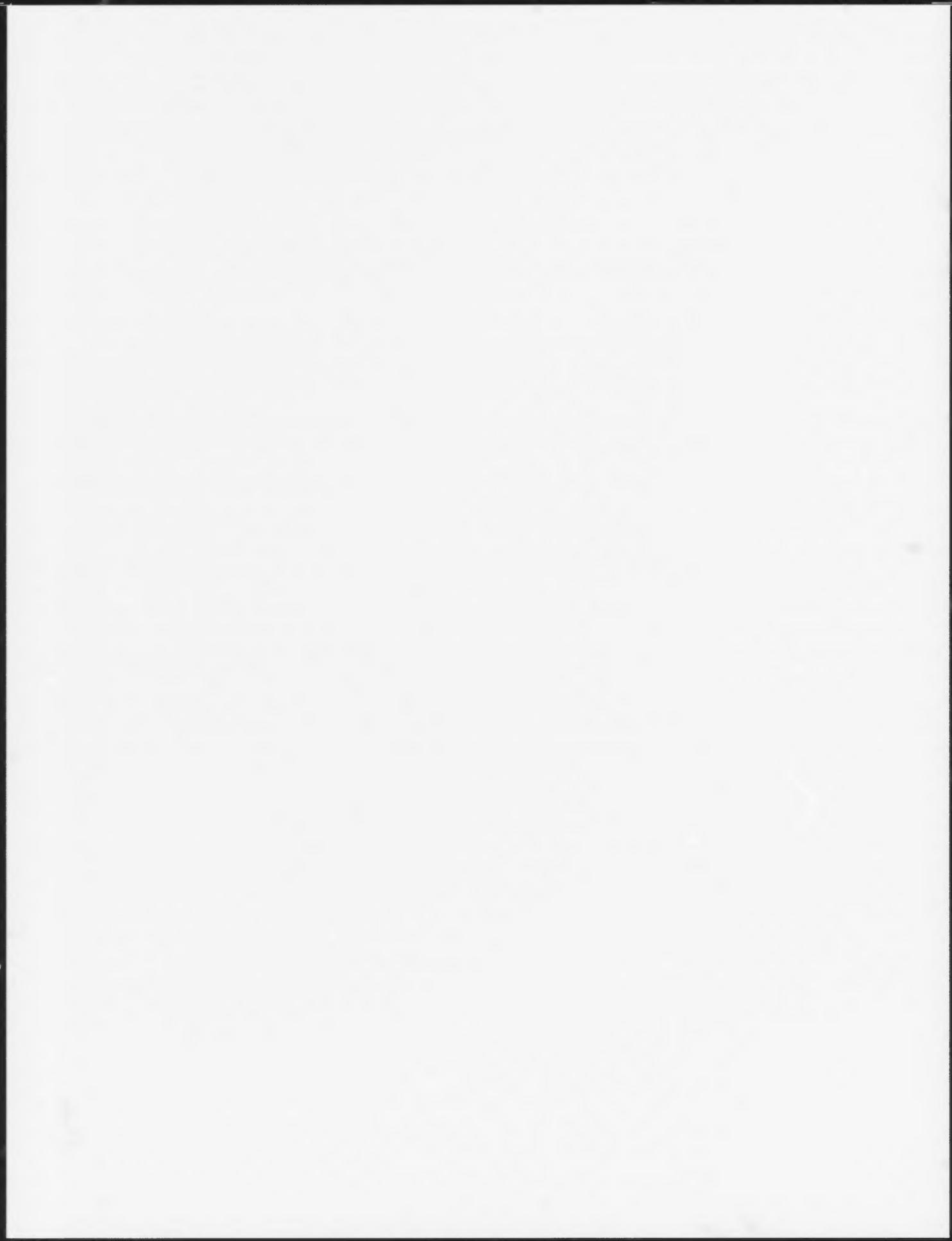




Quality Improvement Initiatives

APPENDIX C

September 2014



QUALITY IMPROVEMENT INITIATIVES

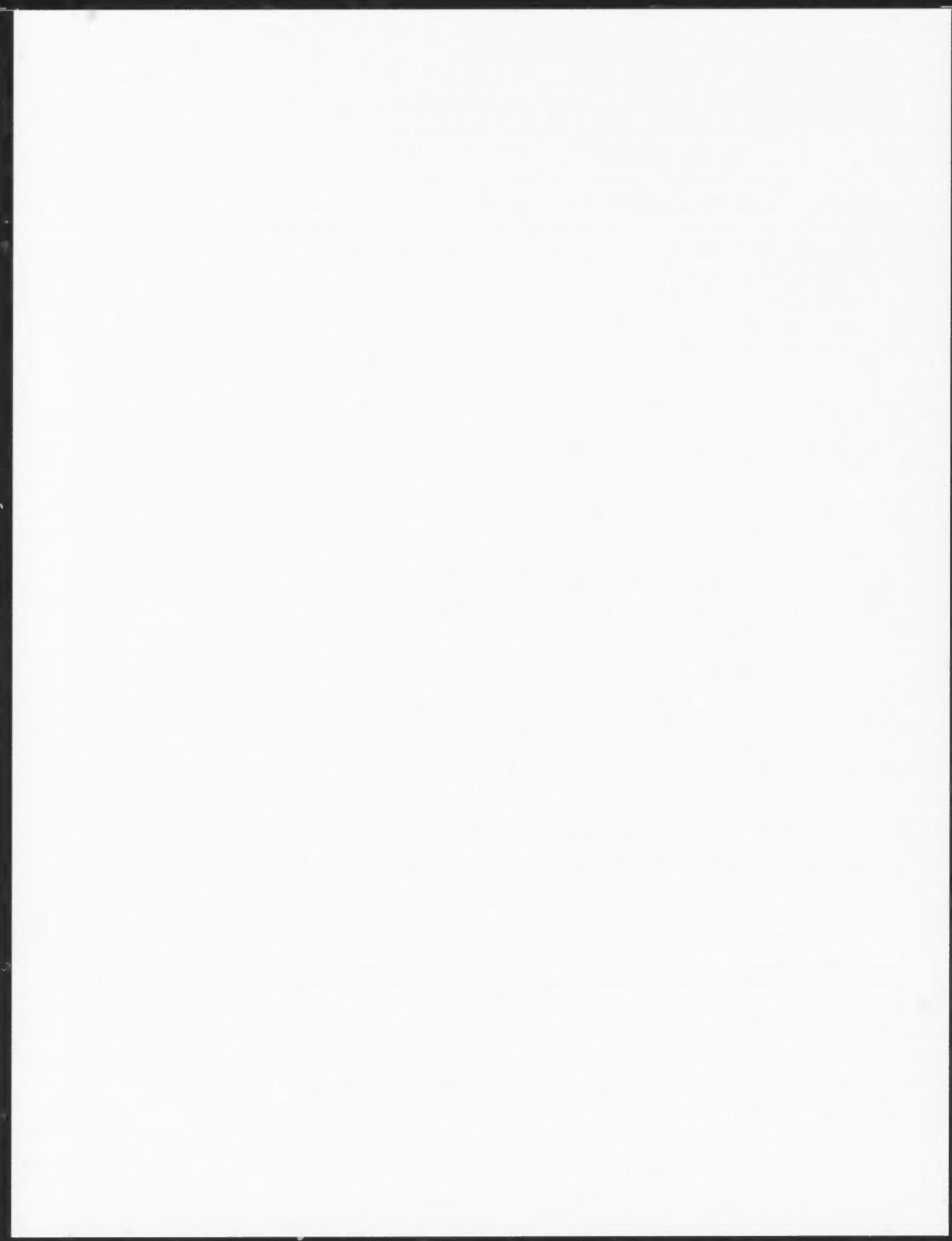
The department funds various entities and programs with a quality improvement role, including:

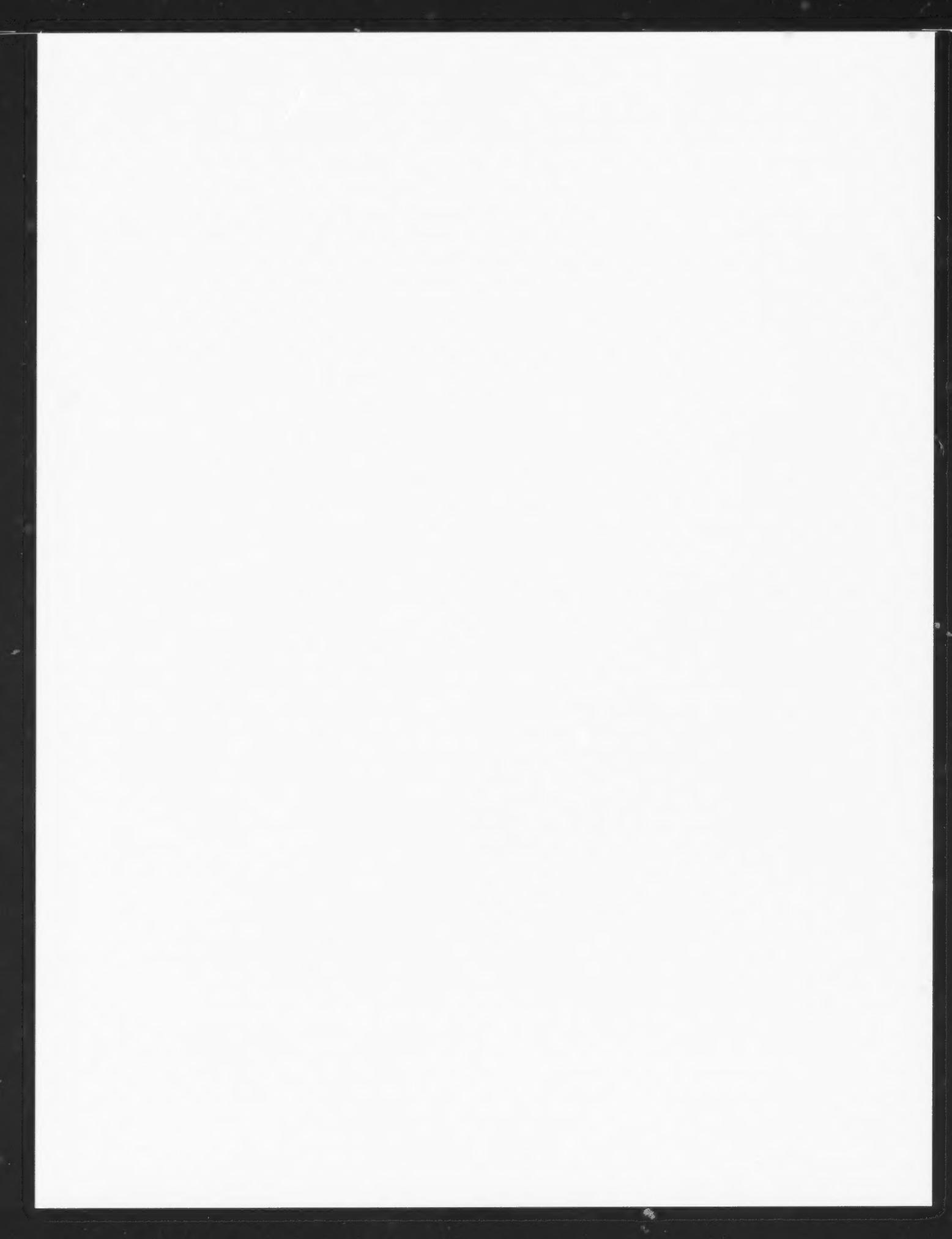
- **Health Quality Council of Alberta**—The HQCA reviews key aspects of healthcare system performance, recommends improvements, and works with several Primary Care Networks to share healthcare data from the department and AHS for planning and evaluation.
- **Physician Learning Program**—This program is funded by the department under the AMA Agreement and administered by the AMA in collaboration with the Universities of Calgary and Alberta.¹ The program works with interested physicians on an individual or group basis, analyzing information from provincial healthcare datasets and the physician's own records to help assess the physician's practice compared to accepted clinical practice guidelines, improve data quality, identify trends in care over time, and identify opportunities for continuing professional development.
- **Towards Optimized Practice**—This program is also funded by the department under the AMA Agreement and administered by the AMA. It currently has two main program areas:²
 - Clinical Practice Guidelines—This program creates or endorses guidelines for treatment in major medical conditions (e.g., cancer, cardiovascular events, endocrinology)
 - Alberta Screening and Prevention initiative—This initiative supports physicians and care teams in offering a bundle of screening and prevention services to patients (e.g., blood pressure, flu vaccine, diabetes and colorectal screening).
- **Access Improvement Measures Program**—This program provides a widely recognized program developed in Alberta. The program is administered jointly by AHS and the Alberta Medical Association. It has been highly successful in helping family physicians and AHS CDM programs measure demand, improve workflows and team based care, reduce delays for patients before and during visits, and increase satisfaction for patients and providers.³

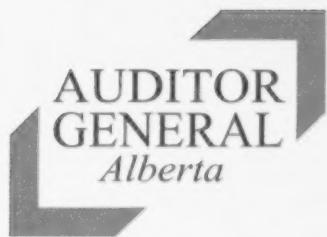
¹ Under the AMA Agreement, the department provided Physician Learning Program with annual base funding of \$3,475,000 in 2013–2014, increasing by 2.5% per year in 2014–2015 and 2015–2016 and Alberta's cost of living adjustment in 2016–2017 and 2017–2018.

² Under the AMA Agreement, the department provided Towards Optimized Practice with annual base funding of \$1,066,000 in 2013–2014, with the same annual increases as Physician Learning Program thereafter.

³ The Access Improvement Measures Program receives annual core funding of \$1.8 million from AHS. Over the three fiscal years ending March 31, 2016, the program will also receive a total of \$8.375 million from the department.







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This report is available at
www.oag.ab.ca ISSN 1927-9604